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THE RESOURCES AGENCY
Department of Water Resources

BULLETIN No. 65-62

QUALITY OF SURFACE WATERS IN CALIFORNIA 1962

APRIL 1965

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

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E OF CALIFORNIA—RESOURCES AGENCY WILLIAM E. WARNE, Director

PARTMENT OF WATER RESOURCES
BOX 388
CAMENTO

February 1, 1965

Honorable Edmund G. Brown, Governor,
and Members of the Legislature of
the State of California

State Water Quality Control Board

Gentlemen:

Bulletin No. 65-62, "Quality of Surface Waters in California, 1962", reports on a data collecting activity authorized by Section 229 of the Water Code and administered by the Department of Water Resources in cooperation with 19 federal, state, and local agencies. Information is presented for 234 stations located on 123 streams (including 6 major aqueducts and canals) and 4 lakes throughout the State.

The intense storms of early 1962 brought an end to the drought conditions experienced by the northern and central parts of the State during 1959-1961. Some temporary relief was also felt in parts of Southern California. The resulting higher flows reversed the trend toward increased seasonal deterioration in quality which was developing in the State's surface waters. For certain streams, notably the lower reaches of the San Joaquin River and some channels of the Sacramento-San Joaquin Delta, quality conditions during the drought were, from an irrigation standpoint, the poorest ever reported. However, by mid-February 1962, conditions had improved substantially and the quality at all stations in the lower San Joaquin Valley was the best since 1958.

In Southern California, the early rains brought a momentary respite from drought conditions resulting in improved quality conditions in a few streams along the coast. Inland, where the storms did not produce diluting runoff, quality conditions remained unchanged or continued to deteriorate.

The serious salinity problem in the Colorado River near the International Boundary continued unabated, causing concern among authorities in both the United States and Mexico. Fortunately, the quality of California's water supplies from the Colorado River is virtually unaffected by this problem.

Sincerely yours,

Director

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor, State of California
HUGO FISHER, Administrator, The Resources Agency
WILLIAM E. WARNE, Director, Department of Water Resources
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Executive Secretary

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ACKNOWLEDGMENTS

The extensive coverage of the statewide surface water monitoring program is made possible through cooperation of federal, state, and local agencies. The helpful cooperation of the following agencies is gratefully acknowledged:

Federal Agencies

- Department of the Army
  - Corps of Engineers
- Department of the Interior
  - Bureau of Reclamation
  - Geological Survey
- Department of Health, Education, and Welfare
  - Public Health Service

State Agencies

- California Disaster Office, Radiological Service
- Department of Fish and Game
- Department of Public Health
  - Bureau of Sanitary Engineering
  - Division of Laboratories
- State Water Quality Control Board

Other Public Agencies

- Imperial Irrigation District
- Kern County Land Company
- Kings River Water Association
- City of Long Beach, Department of Public Health

Other Public Agencies (continued)

City of Los Angeles

Department of Public Health

Department of Water and Power

Los Angeles County Flood Control District

Metropolitan Water District of Southern California, The

City of San Bernardino

City and County of San Francisco

Ventura County Water Resources Division

The Department of Water Resources wishes to especially thank the following federal agencies who granted permission for inclusion in this report of unpublished water quality data collected under various programs:

United States Department of the Interior

Bureau of Reclamation

Geological Survey

In addition, the United States Geological Survey performed a substantial portion of the analyses required by this program under a cooperative agreement with the Department of Water Resources. The bacteriological determinations were made by the California State Department of Public Health and the radiological determinations by the California Disaster Office under provisions of an agreement with the State Water Quality Control Board.

AUTHORIZATION

The activities of the Department's surface water quality program are authorized by Section 229 of the Water Code, which directs that:

> "The department ... shall investigate conditions of the quality of all waters within the State, including saline waters, coastal and inland, as related to all sources of pollution of whatever nature and shall report thereon to the Legislature and to the appropriate regional water pollution control board annually, and may recommend any steps which might be taken to improve or protect the quality of such waters."

CHAPTER I. INTRODUCTION

It is axiomatic that a usable as well as abundant source of water is essential to the development of California. Accordingly, it is necessary that the quality of the State's surface water supplies be determined to complement the determination of quantity. In addition, to insure that California's rapidly expanding economy and increasing population are provided with a usable supply of surface water, the early detection and control of quality impairment is necessary.

As the importance of good quality water became more apparent to water users throughout the State, attempts to gather quality information increased. However, except for certain areas such as portions of the Central Valley and Southern California, much of the data is scattered as to location and of a discontinuous nature. Realizing the need for detailed information about the quality of the State's surface waters and for a comprehensive program of surveillance, the State of California began to systematically examine their quality early in 1951. Since that time, this program has been conducted by the Department of Water Resources in cooperation with a number of agencies and organizations.

This bulletin is the seventh in a chronological series of reports on surface water quality conditions in California. Data presented were collected by the Department of Water Resources and its cooperators. In addition to basic data, this bulletin contains evaluations and interpretations of significant variations in quality detected during 1962.

Because the quality of surface waters is subject to frequent and substantial change, the Department of Water Resources, as an aid to interested agencies and individuals, also publishes a monthly report on the subject. It is entitled "Quality of California Surface Waters in (Month, Year)". The monthly reports present current information for many of the locations described in this report plus a brief summary of significant changes in quality that have taken place between issues.

Prior Reports

Data for previous periods are included in the following publications.

California Department of Public Works, Division of Water Resources, Water Quality Investigations. "Quality of Surface Waters in California, 1951-1954." Report No. 15.

California Department of Water Resources, Division of Resources Planning. "Quality of Surface Waters in California, 1955-1956." Bulletin No. 65.

----. "Quality of Surface Waters in California, 1957." Bulletin No. 65-57.

----. "Quality of Surface Waters in California, 1958." Bulletin No. 65-58.

----. "Quality of Surface Waters in California, 1959, Part I, Northern and Central California." Bulletin No. 65-59.

----. "Quality of Surface Waters in California, 1959, Part II, Southern California." Bulletin No. 65-59.

----. "Quality of Surface Waters in California, 1960-1961, Volume I, Northern and Central California." Bulletin No. 65-61. (In two parts: (1) text, (2) basic data.)

----. "Quality of Surface Waters in California, 1960-1961, Volume II, Southern California." Bulletin No. 65-61.

Objectives

The objectives of this program are:

(1) To determine the quality of the State's surface waters through a network of sampling stations representative of all significant streams and lakes in the State;

(2) To detect changes in the quality of surface waters and alert control agencies when adverse changes are noted;

(3) To determine trends in surface water quality;

(4) To record and catalogue the data in a readily available form; and

(5) To disseminate the data and information gathered to interested agencies as soon as practicable.

Scope of the Report

During 1962, water samples were collected and analyzed for 234 stations situated on 123 streams (including 6 major aqueducts and canals) and 4 lakes throughout the State. The location of these stations are shown on Plate 1. Included in the 234 stations are 22 stations maintained by the U. S. Bureau of Reclamation as a part of its program for operation of the Central Valley Project. In addition to the statewide network of sampling stations, the Department of Water Resources maintains in cooperation with the U. S. Bureau of Reclamation a network of stations in the Sacramento-San Joaquin Delta for the purpose of determining the encroachment of salinity from tidewaters into the Delta. Information gathered under this auxiliary program is also described in this report. Locations of stations in this network which, it is emphasized, is independent of the statewide network of stations are shown on Plate 2.

Chapter 2 contains a discussion of the mineral quality of surface waters as found throughout the State in 1962. Discussion is presented in successive order by water pollution control regions which are numbered and named substantially in accordance with the major surface drainage basins with which they are, in essence, co-terminous (see Plate 1). The nine water pollution control regions are:

North Coastal Region (No. 1)

San Francisco Bay Region (No. 2)

Central Coastal Region (No. 3)

Los Angeles Region (No. 4)

Central Valley Region (No. 5)

Lahontan Region (No. 6)

Colorado River Basin Region (No. 7)

Santa Ana Region (No. 8)

San Diego Region (No. 9)

For convenience in presentation, the Central Valley Region (No. 5) has been divided into four separate areas as follows: 5a, which encompasses the Sacramento Valley and its tributary watershed; 5b, the San Joaquin Valley; 5c, the Sacramento-San Joaquin Delta; and 5d, the Tulare Lake Basin (the southern one-half of the San Joaquin Valley).

Chapter 3 contains a discussion of quality characteristics of the State's surface waters other than those described by the concentrations of the common mineral salts as found in 1962. Included are presentations pertaining to arsenic, detergents (ABS), the minor constituents (heavy metals), dissolved oxygen, bacteriological quality, and radioactivity.

Appendix A describes the procedures employed under the program and presents a discussion of the criteria utilized in evaluating the quality of water relative to existing or anticipated beneficial uses.

Appendix B contains the data collected under the program. The tabular data are segregated according to location within a particular water pollution control region and also according to the type of data. At the forefront of Appendix B is an index to the tabular data. In addition to listing the pages on which tabular data may be found, the index contains information pertaining to the location, period of record, frequency of sampling, and the collecting agency for each station. This index should also be used in identifying the station locations shown on Plate 1.

CHAPTER II. MINERAL QUALITY

The basic quality characteristics of all waters are those imparted by the kinds and amounts of minerals with which they come in contact as they proceed through the hydrologic cycle. These characteristics can be altered substantially and made even more complex by the water-associated activities of man. The concentration and chemical composition of dissolved minerals at any one time and for any particular water are categorized as its mineral quality. The concentration of chemical constituents and combinations of constituents in water vary considerably. Likewise, their effect on the beneficial uses of water is quite variable. With respect to surface waters, this variation in mineral quality is constantly changing, at times only slightly while at other times quite radically depending on the factors which influence the flow of water at a particular location. Accordingly, these characteristics are repeatedly examined through the process of sampling, laboratory analyses, and evaluation to determine whether or not they have changed, what the magnitude of change is, its probable cause, whether or not there is a definite pattern or trend attached to such changes, and what effect this may have on the beneficial use of the particular water in question.

This chapter describes the general mineral character of California's surface waters and discusses the significant changes in mineral quality which occurred during 1962.

North Coastal Region (No. 1)

Thirty-two stations were maintained on 19 streams in this region in 1962. Waters of streams in the northern portion of the

region are predominantly calcium-magnesium bicarbonate, while the remaining streams are generally calcium bicarbonate in character. Boron is present in significant but generally tolerable quantities in certain streams, notably the Shasta, Russian, and Upper Eel Rivers. In general, the mineral quality of streams in this region is excellent for all but the most exacting requirements.

During 1962, there were few significant changes in the mineral quality of streams in the North Coastal Region. In May 1962, a maximum value of record for the concentration of phosphates of 1.6 ppm was reported for station 3, Klamath River near Klamath. The concentration of boron in waters of Outlet Creek near Longvale (station 5b), tributary to the Eel River, near Dos Rios, exceeded 0.5 ppm throughout the summer of 1962. The maximum concentration for the year, 3.1 ppm in September, is the second highest value for boron reported at this station. The maximum value of record, 4.2 ppm, was reported in September 1961.

San Francisco Bay Region (No. 2)

There were five quality stations maintained on as many streams in this region during 1962. In addition to those streams directly tributary to San Francisco Bay, data for two stations, maintained by the U. S. Bureau of Reclamation to observe changes in the quality of the Sacramento River in its final tidal reach, are included only as a matter of information since they fall within the boundaries of the region. Discussion of the variation of quality in the tidal reaches of the river system will be found in the subsequent section of this report under the heading "Central Valley Region (No. 5) - Sacramento-San Joaquin Delta (subregion 5c)".

Waters of principal streams tributary to San Francisco Bay are bicarbonate in type with calcium generally the predominant cation. Mineral concentrations (total dissolved solids) range from 100 to 550 ppm for the Napa River and Coyote and Los Gatos Creeks, and from 150 ppm to as high as 1,100 ppm for Arroyo Del Valle and 900 ppm for Alameda Creek. Boron frequently exceeds 0.5 ppm in the Napa River, Arroyo Del Valle, and Alameda Creek. Waters of the latter streams normally range from moderately hard to very hard. Occasionally the other streams in the region carry water which is considered very hard.

After having been dry since early summer 1961, flow resumed early in 1962 at stations 73, Alameda Creek near Niles; 71, Arroyo Del Valle at Veterans Hospital; and 82, Coyote Creek near Madrone. In January 1962, waters of Alameda Creek at Niles had a specific conductance of 1,470 micromhos (approximately 900 ppm, total dissolved solids), the second highest value for total mineral concentration recorded at this station. The boron concentration was 1.0 ppm. In February 1962, the boron concentration for waters of Arroyo Del Valle was reported at 2.9 ppm, somewhat less than the maximum concentration of 3.3 ppm reported a year earlier. Boron concentration in both these streams decreased in succeeding months remaining near the 0.5 ppm level in Alameda Creek but rising to near the 1.0 ppm level in Arroyo Del Valle.

A minimum value of record for specific conductance of 195 micromhos (about 120 ppm, total dissolved solids) was reported for Los Gatos Creek at Los Gatos (station 74) in November 1962.

Central Coastal Region (No. 3)

Fourteen stations on 11 streams were in operation in this region during 1962. The widespread rains early in the year caused flow to resume at several stations, some of which had been reported as dry for many months. In March 1962, streamflow was reported at station 44a, Cuyama River near Garey (dry since May 1960), and station 43a, Salinas River at Paso Robles (dry since June 1960).

Streams of the northern portion of this region (San Lorenzo and Carmel Rivers and Soquel and Uvas Creeks) are calcium bicarbonate in character. Waters of Soquel Creek are very hard. Mineral concentrations in the Pajaro River at Chittenden (station 77) vary substantially with considerably higher concentrations and changing characteristics at low flows. Boron at this station generally exceeds 0.5 ppm, ranging as high as 2.0 ppm, and the waters are frequently very hard. The high mineral concentrations in the Pajaro River at this location can be attributed to its major tributary, the San Benito River. Waters of the San Benito River are magnesium-sodium bicarbonate-sulfate in high concentration (total dissolved solids are usually in excess of 1,200 ppm). Boron is seldom less than 1.5 ppm and the waters are very hard with values for total hardness reported as high as 702 ppm.

Waters of the Salinas River and its tributaries, the major stream system in the Central Coastal Region, are calcium bicarbonate with concentrations of total dissolved solids generally below 500 ppm except at the uppermost station, Salinas River at Paso Robles (43a), where the concentration has been as high as 1,280 ppm.

They range from moderately hard to very hard. The mineral quality at the lowermost station on this stream system, Salinas River near Spreckels (station 43), is at times strongly influenced by the effluent from Alisal Sanitary District Sewage Treatment Plant which is discharged to the river upstream from the sampling point. Consequently concentrations of various minerals at this station are higher than those found in the natural flow.

Streams in the southern portion of the region are calcium-magnesium sulfate (Cuyama River) or calcium-magnesium sulfate-bicarbonate (Santa Ynez River) in character and the waters are very hard. Waters of the Cuyama River near Garey (station 44a) are extremely hard with values for total hardness ranging from 451 to 990 ppm. Total dissolved solids concentrations at this station are the highest for any location in this region and range from 875 to 1,760 ppm.

The most significant changes in surface water quality for the Central Coastal Region during 1962 took place in response to the resumption of flow at several locations. The quality of water flowing in the Salinas River at Paso Robles (station 43a) was considerably better than that found at this location during the period of flow recorded in 1960. Flow lasted three months (March, April, and May) in 1962 and the concentration of total dissolved solids ranged from 424 to 650 ppm. During the period of flow in 1960 (February through June), total dissolved solids at this station ranged from 338 to 886 ppm but was above the 700 ppm level for all months except February. Minimum values of record for concentrations of total hardness (451 ppm) and total dissolved solids (875 ppm)

were reported for waters of the Cuyama River near Garey (station 44a in May 1962. As pointed out earlier in this section, there had been no flow at these two stations since spring 1960.

The trend toward increased mineral concentration in the Pajaro River at Chittenden (station 77) which developed during the dry years of 1960 and 1961 receded for only a short time. This was during the period of heavy runoff that occurred in March, April, and May 1962. Values for specific conductance varied between 1,830 and 2,170 micromhos throughout the remaining months of the year with the higher values approaching the maximum value of record (2,200 micromhos) reported in November 1954. The previous maximum value for chloride concentration (374 ppm) at this station was exceeded three times in 1962 and a new maximum of record of 382 ppm was established in January 1962. Likewise the concentration of boron exceeded the previous maximum of record (2.0 ppm) three times and a new maximum of 2.4 ppm was established. It is interesting to note that mineral concentrations in waters of the San Benito River, the Pajaro River's principal tributary, while substantial, were generally slightly lower than those of the previous year. However, new maximums of record for chloride concentration (260 ppm) and total hardness (715 ppm) were established for the sampling station (station 77a, San Benito River near Bear Valley Fire Station).

Los Angeles Region (No. 4)

During 1962, data pertaining to the quality of surface waters in this region were collected at 15 stations located on 12 water sources. Included are stations near the termini of the

Colorado River Aqueduct and the Los Angeles Aqueduct. The latter conveys water from the Owens River Basin located in the Lahontan Region (No. 6) to the Los Angeles area. These aqueducts are the principal sources of surface water supplies for the metropolitan area of Southern California.

The quality of surface waters in the Los Angeles Region varies considerably from stream to stream and at any particular location may be strongly influenced by imported water and the multiple use, including the disposal of waste water, to which these waters are put. Quality conditions in the various stream systems are discussed in the following paragraphs beginning at the western end of the region and moving east and south to the eastern boundary.

Ventura River System

Waters of the Ventura River and its principal tributary, Matilija Creek, are calcium sulfate-bicarbonate in character and very hard. Total dissolved solids range from 200 to 1,200 ppm in the Ventura River and from 400 to 1,700 ppm in Matilija Creek. During periods of low flow, the concentration of boron in Matilija Creek exceeds 1.0 ppm. A trend toward increased mineral concentration in Matilija Creek developed after the period of heavy runoff recorded in the spring of 1958, reaching a maximum in December 1961. This trend was reversed in 1962 in response to the dilution afforded by heavy amounts of precipitation that occurred.

Santa Clara River System

In the Santa Clara River Valley of Ventura County, waters of the Santa Clara River and its tributaries are calcium-sodium

sulfate in character and are extremely hard. Except for Santa Paula Creek, values for boron are usually in excess of 0.5 ppm and frequently higher than 1.0 ppm. Concentrations of sulfate are often extremely high and seldom fall below 250 ppm, the upper limit for sulfate concentration recommended in the U. S. Public Health Service Drinking Water Standards. At the uppermost station on this system, Santa Clara River near Los Angeles-Ventura County Line (station 46) sulfate has been reported as high as 3,368 ppm, and at the lowermost station, Santa Clara River near Santa Paula (station 46a), as high as 971 ppm.

In March 1962, heavy rains produced a runoff sufficient enough to dilute the mineral concentrations at station 46, Santa Clara River near Los Angeles-Ventura County Line, such that minimum values of record for total dissolved solids (484 ppm), total hardness (270 ppm), and sulfate concentration (214 ppm) were produced at this station. Likewise at station 46c, Piru Creek near Piru, minimum values of record for total dissolved solids (545 ppm), total hardness (328 ppm), and sulfate (254 ppm) were reported. While mineral concentrations were lower in 1962 than in 1961 at the other stations in the watershed, no dramatic changes in quality similar to those described above were recorded.

Los Angeles River System

The lower reaches of the Los Angeles River serve as a drainage facility for the conveyance of industrial waste water and storm runoff through the Los Angeles metropolitan area. Consequently the quality of water flowing in the channel is extremely

variable. During periods of high runoff, mineral concentrations are low; however, during most of the year when there is little natural runoff, concentrations are high. At station 47, Los Angeles River at Los Angeles, the water is usually sodium sulfate-chloride in character and very hard. At station 48, Los Angeles River at Long Beach, situated near where the stream enters the Pacific Ocean, the water is usually of such poor quality that it is unusable for any recognized beneficial use. This is because the flow consists almost entirely of highly concentrated, often toxic, waste water. Since the station is in the tidal reach of the river, analyses at times indicate the presence of sea water.

San Gabriel River System

Included in this system is the Rio Hondo, a bifurcation of the San Gabriel River.

Native water in the San Gabriel River system is calcium bicarbonate in character with total dissolved solids between 190 and 350 ppm, and moderately hard to very hard. At times Colorado River water is released to the system above Whittier Narrows and the mixture used to artificially recharge ground water by spreading in the channels of the San Gabriel River and Rio Hondo. Consequently at the downstream stations, the water at these times takes on the chemical characteristics of the imported water, becoming calcium-sodium sulfate water. Total dissolved solids are on the order of 700 ppm and total hardness increases to around 350 ppm.

The Los Angeles and Colorado River Aqueducts

As stated earlier, these conveyance facilities constitute the major source of surface water supply for the metropolitan area

in the region, and (so far as the Colorado Aqueduct is concerned) in the neighboring regions to the south, the Santa Ana (No. 8) and San Diego (No. 9) Regions.

Water from the Los Angeles Aqueduct (which comes from the Owens River Basin) is sodium-calcium bicarbonate in character, soft and of excellent mineral quality. Total dissolved solids vary little, ranging from 159 to 259 ppm.

Water from the Colorado River Aqueduct is calcium-sodium sulfate in character with total dissolved solids ranging from 597 to 830 ppm. It is very hard, total hardness ranging between 300 an 400 ppm.

As is to be expected, there is little fluctuation in mineral concentration in the waters of the two aqueducts throughout th year. During 1962, mineral concentrations in waters of the Los Angeles Aqueduct were generally lower than those reported in 1961. In contrast, mineral concentrations in waters of Colorado River Aqueduct continued to increase. The increased concentration developed after a period of minimum concentration recorded during the last half of 1958 and throughout 1959. However, the concentrations were below the maximum values reported in 1956 and 1957.

Central Valley Region (No. 5)

As stated in the previous chapter, because the Central Valley is so extensive it has been divided into four separate areas for the purposes of this report. They are: 5a, the Sacramento Rive Valley and its tributary watershed; 5b, the San Joaquin River Valle 5c, the Sacramento-San Joaquin Delta; and 5d, the Tulare Lake Basin

Sacramento River Valley Subregion (5a)

Included in this discussion are the waters of the major tributaries of the Sacramento River: the Pit, Feather, Yuba, and American Rivers, and 18 other significant tributaries. During 1962, there were 52 stations in operation in this subregion.

Waters of streams tributary to the Sacramento River above Shasta Dam are primarily calcium bicarbonate in character, soft, and of low mineral concentration. Streams tributary between Keswick and Red Bluff are similar in quality but somewhat harder. Eastside tributaries between Red Bluff and Chico are bicarbonate with no predominant cation, soft, and of low mineral concentration. Waters of the Feather and Bear Rivers are calcium-magnesium bicarbonate while those of the Yuba and American Rivers are calcium bicarbonate. Except for the Bear River, whose waters are at times moderately hard, waters of all four streams are soft and mineral concentrations are quite low.

The quality of water in west side tributaries south of Red Bluff varies substantially from those on the east side of the valley and those above Red Bluff. Mineral concentrations are somewhat higher, the waters range from moderately hard to very hard, and boron is present in significant concentrations. Waters of Red Bank, Elder, Thomes, and Stony Creeks are calcium, or calcium-magnesium, bicarbonate in character while those of Clear Lake-Cache Creek are magnesium-calcium bicarbonate in character. In Putah Creek, the most southerly stream, the waters are magnesium-bicarbonate. High concentrations of boron are consistently reported for Cache Creek. At station 80, Cache Creek near Capay, the boron

concentration generally exceeds 0.5 ppm and frequently is greater than 1.0 ppm. At station 79, North Fork Cache Creek near Lower Lake, boron exceeds 2.0 ppm except during periods of excessive run-off in winter. In the past, boron concentration in waters of Putah Creek near Winters (station 81) frequently exceeded 0.5 ppm. However, since Monticello Dam was constructed and the reservoir placed in operation, the level of concentration has been consistently below 0.5 ppm.

During 1962, there were few significant changes in the quality of water in streams tributary to the Sacramento Valley. A maximum value of record for boron concentration (0.8 ppm) was established for waters of Stony Creek near Hamilton City (station 13a). A minimum value of record for boron (0.1 ppm) was established at station 41, Clear Lake at Lakeport, in October. The level of boron in Cache Creek rose to peaks of 5.4 ppm at station 79, North Fork near Lower Lake, and 3.1 ppm at station 80, near Capay. However, these values were below the maximums of record reported for these stations.

The mineral quality of water in the Sacramento River, as would be expected, varies depending on the degree of influence imposed upon it by the more concentrated drainage waters, sewage and industrial wastes, and effluent ground waters which tend to degrade it, and by the less concentrated flows of the tributary streams which tend to "sweeten" it. Below Shasta Dam, it is calcium bicarbonate in character and soft, with total dissolved solids ranging from 67 to 102 ppm. At the Freeport station, well below the city of Sacramento and the American River, the last tributary before the

Delta, it is still bicarbonate in character and soft. However, the major cations, calcium, magnesium, and sodium, are nearly equal in concentration and total dissolved solids range from 68 to 169 ppm. The quality of the Sacramento River is excellent throughout its length. In February 1962, a maximum value of record for specific conductance of 143 micromhos was established at Keswick (station 12). However, this is a matter of record only and has little practical significance.

The quality of drainage water entering the Sacramento River from the valley floor is measured at two locations, each on a major tributary drain. Water from the Colusa Trough is sodium-magnesium bicarbonate, soft to very hard, with values for total dissolved solids reported as high as 900 ppm. Waters of Sacramento Slough are bicarbonate in character, soft to moderately hard, with total dissolved solids ranging up to 440 ppm.

San Joaquin River Valley Subregion (5b)

This subregion encompasses the entire northern one-half of the San Joaquin Valley. Surface drainage is to the San Joaquin River. In 1962, there were 20 stations in operation in the area under this program. Additional data were obtained at five stations operated by the U. S. Bureau of Reclamation. Two new stations, San Joaquin River at Crows Landing Bridge (26b) and San Joaquin River at Patterson Bridge (27a), were added to the network in January. These stations were established to more adequately determine the quality of water in the lower reaches of the San Joaquin River where, at times, it has been critical. Sampling at both stations will

provide data representative of the quality in a relatively long reach of the stream. Historical data collected by the Department of Water Resources and the U. S. Bureau of Reclamation are availab for these locations.

Waters of the major east side streams above the valley floor -- the San Joaquin, Fresno, Chowchilla, Merced, Tuolumne, an Stanislaus Rivers -- are generally calcium bicarbonate in characte and soft, with low mineral concentrations. Highest mineral concen trations for this group have been reported at station 114, Chow-chilla River at Buchanan Dam site (the maximum value of record for total dissolved solids is 481 ppm).

As they move across the valley floor, waters of the east side streams increase in mineral concentration. The degree of in-crease varies with the particular stream, depending on the factors which tend to bring about the increase. The stream which experi-ences the greatest increase in mineral concentration is the Tuolum River. At the upstream station, below Don Pedro Dam (31a), the waters are as described above with a total dissolved solids concen tration of 117 ppm being the maximum. At the next station, Hickma Waterford Bridge (30), the waters vary in character from calcium-sodium-magnesium bicarbonate at moderate flows to sodium chloride at low flows. Overflow of saline water from abandoned and partial used gas wells, located along the reach of the river between the two stations, contributes substantially to the degradation in the quality in the stream, particularly at low flows. The chloride concentration increases about tenfold when the discharge is low. During the past three years, the range in chloride concentration h

varied approximately between 10 and 120 ppm. At the lowermost station, Tuolumne City (31), located a few miles upstream from the confluence with the San Joaquin River, mineral concentrations at the lower flows are approximately double those at the Hickman-Waterford Bridge station. Surface drainage, effluent ground water, sewage, and waste from additional gas wells contribute to the increased concentration and the waters become sodium chloride in character. Total dissolved solids at this station have ranged from 34 ppm to as high as 686 ppm and the chloride concentration from 7 to 298 ppm. The trend toward increased mineral concentration in the Tuolumne River at the two valley floor stations which began in 1959 was reversed in 1962, and mineral concentrations, especially at the Tuolumne City station, were substantially lower than in the previous three years.

Large quantities of water are imported to the San Joaquin Valley from the Sacramento-San Joaquin Delta via the Delta-Mendota Canal. At its terminous near Mendota (station 92), the water in the canal is sodium chloride-bicarbonate in character, and soft to hard with moderate concentrations of dissolved solids. The water, of course, generally varies in quality in response to the changes in quality which take place at the intake in the Sacramento-San Joaquin Delta, near Tracy.

The quality of water in the main stem of the San Joaquin River between Mendota and the Delta is influenced by many factors. Accordingly, there is considerable variation in quality throughout its length. At Mendota (station 25), most of the water is imported water delivered via the Delta Mendota Canal. Consequently the

quality of water at this station is not necessarily representative of the natural quality of water in the San Joaquin River and there is no consistent predominance of a specific cation or anion. The principal cations are sodium and calcium and the dominant anions ar bicarbonate and chloride. Total dissolved solids have ranged from 18 ppm (when the San Joaquin River was in flood) to 753 ppm.

During the irrigation season, all of the flow between Men dota and a point opposite the city of Dos Palos is diverted. Consequently water at the next sampling station, Fremont Ford Bridge (25c), some 50 miles downstream from Dos Palos, consists entirely of return water accumulating an unspecified distance above the station and from Salt Slough, the major natural drain for a large area in western Merced County. At this point, waters of the San Joaquin River contain the highest concentrations of salts to be found anywhere throughout its length. They vary in character from sodium chloride to sodium-calcium chloride-sulfate. Total dissolved solid have ranged from 67 ppm (flood stage) to 3,350 ppm. Except during flood flows, the waters are extremely hard (maximum reported value for total hardness is 1,240 ppm) and chlorides and sulfates are present in concentrations frequently in excess of 250 ppm. Generally, the quality of these waters is poor and occasionally it has been degraded to the point of being unusable.

In general, the quality of water in the San Joaquin River improves at each successive downstream station. This is brought about by the dilution afforded by the major tributaries -- the Merced, Tuolumne, and Stanislaus Rivers -- as well as spillage from the irrigation canal systems operated by the larger irrigation

districts which obtain their supply principally from the tributaries. However, there is a tendency for the mineral concentrations to increase in the relatively long reach between the Merced and Tuolumne Rivers. This is due to the fact that drainage water, other waste waters, and effluent ground water infringe heavily on the dilution gained from the Merced River. As a result, a secondary peak in concentration on the San Joaquin River far less severe than that at Fremont Ford Bridge occurs in the vicinity of the Grayson station (26) located a short distance above the confluence with the Tuolumne River. At times this peak in concentration is found further upstream at the Patterson Bridge (27a) or Crows Landing Bridge (26b) stations. Total dissolved solids at the Grayson station have ranged from 54 ppm (flood flow) to 1,140 ppm, and the water varies in character from calcium bicarbonate to sodium chloride.

The lowermost station, San Joaquin River near Vernalis (27), marks the downstream end of the San Joaquin River Valley and the beginning of the Sacramento-San Joaquin Delta. All surface water flow from the valley passes this point and at the same time it is above the influence of tidal action. It is, therefore, one of the key stations in the network operated under this program. The water at station 27 is generally sodium chloride to sodium chloride-bicarbonate in character, moderately hard to hard (soft during high stages of flow) with total dissolved solids ranging from 52 (at high stages) to 1,220 ppm. As at all other stations in the lower reaches (between Fremont Ford Bridge and the Delta) of the San Joaquin River, mineral concentrations at times attain a level considered critical for irrigation, the river's prime use.

The trend toward increasing mineral concentration in water of the San Joaquin River which developed during the dry years 1959, 1960, and 1961, was abruptly reversed by the heavy rains of February and March 1962 and successively improved by increased runoff in the Merced and Stanislaus Rivers during June 1962 which resulted from the first substantial snowmelt since 1958. In December 1962, mineral concentrations at the Fremont Ford station (25c) jumped abruptly upward and exceeded the concentrations reported in the three previous years. Specific conductance was reported at 3,840 micromhos and the chloride concentration was 885 ppm. These values, however, did not exceed the maximum values of record of 5,410 micromhos and 1,330 ppm recorded in late October 1955.

Sacramento-San Joaquin Delta Subregion (5c)

This subregion contains the central portion of the Central Valley and is the focal point for all waters draining toward the Pacific Ocean from the Sacramento and San Joaquin Valleys. Included is the Sacramento-San Joaquin Delta, which extends west to Suisun Bay, and the watersheds of the Cosumnes, Mokelumne, and Calaveras Rivers which are tributary to the Delta from the east. In 1962, there were 23 stations in the area, 17 in the Delta, and 6 on the eastern tributary streams. Additional data for the Delta are collected at 11 stations operated by the U. S. Bureau of Reclamation.

Waters of the eastern tributaries are calcium bicarbonate in character and soft, with low concentrations of dissolved minerals

The quality of water in the Sacramento-San Joaquin Delta is quite variable and is influenced primarily by five important

factors. These are: (1) the tidal motivated incursion of saline water from Suisun Bay into the Delta, (2) flow and quality conditions in streams tributary to the Delta, (3) diversions to, and return flows from, the many irrigated islands in the Delta, (4) export of water from the Delta, and (5) ground water accretions in the Delta.

In the northern portion of the Delta, the waters are representative of the Sacramento River and are bicarbonate in character with the major cations about equal in proportion to one another. They are generally soft with low mineral concentrations. Waters of the middle portion of the Delta vary in chemical composition grading from the bicarbonate type described for the northern portion to the sodium chloride characteristic common to the southern portion. They range from soft to hard and have moderate concentrations of dissolved minerals. At the western edge of the middle-Delta, at station 28, San Joaquin River at Antioch, the quality of water undergoes extreme variation because it is affected by sea water from Suisun Bay under certain conditions. When flows are insufficient to repel sea water incursion, the water at this station assumes the sodium chloride character of ocean water and is therefore unsuitable for municipal and industrial use and is restricted as a source of irrigation water. In winter and spring when streamflow increases, the water is usually an excellent sodium bicarbonate water.

Waters of the southern and southwestern portions of the Delta are sodium chloride in character, soft to hard, with maximum values for total hardness at eight stations ranging from 248 to 356 ppm. Total dissolved solids at these same stations vary, at

the maximum, from 609 to 914 ppm. Boron, especially along the western perimeter, is an important characteristic of these waters and maximum concentrations reported exceed 0.5 ppm at all stations Mineral concentrations at one station in particular are significan higher than concentrations at the other seven stations. This is station 107, Indian Slough near Brentwood, where maximum reported values for certain concentrations are: total dissolved solids, 1,237 ppm; total hardness, 570 ppm; and boron, 4.9 ppm. These higher values can be attributed to the influx of highly concentrat ground waters to this channel and to increased mineral concentrations resulting from the fact that there is little opportunity for a complete turnover or flushing out of the water in the channel.

The trend toward deterioration in quality of the waters the southern one-half of the Delta and near Stockton, which accompanied the dry years 1959, 1960, and 1961, continued into 1962 reaching a peak at most locations in mid-January and at other stations in mid-February. Maximum values of record for specific conductance (a measure of total salt concentration) and total hardnes were reported for six stations (seven stations for hardness) and near maximum values were reported for the remaining five stations. Following is a tabulation of the values reported together with an estimated value for total dissolved solids. At stations 107 and 108, the maximums occurred in February and, in addition, new maxim values for boron concentration of 0.8 and 1.9 ppm, respectively, were reported at these stations.

MAXIMUM VALUES IN 1962
FOR SPECIFIC CONDUCTANCE AND TOTAL HARDNESS
AT STATIONS IN THE SACRAMENTO-SAN JOAQUIN DELTA

Station	Specific Conductance (micromhos)	Estimated value for total dissolved solids (ppm)	Total Hardness (ppm)
Delta Mendota Canal near Tracy (93)	1,440*	811	344*
Stockton Ship Channel at Rindge Island (100)	944*	525	210*
San Joaquin River at Garwood Bridge (101)	1,270*	719	286*
San Joaquin River at Mossdale Bridge (102)	1,270	719	280
Old River near Tracy (103)	1,360	756	326
Grant Line Canal at Tracy Road Bridge (103a)	1,270	698	292
Old River at Clifton Court Ferry (104)	1,330*	757	307*
Italian Slough near Mouth (106)	1,610*	919	348*
Indian Slough near Brentwood (107)	1,350	752	288
Old River at Orwood Bridge (108)	1,390*	781	334*
Rock Slough near Knightsen (109)	1,090	627	302*

* New maximum of record.

Salinity in the Sacramento-San Joaquin Delta

The intrusion of saline water from the San Francisco Bay complex into the channels of the Delta from which water is diverte for irrigation has been a significant problem for many years. To maintain surveillance of the encroachment of saline water into the Delta and to determine its extent, there is, in addition to the net work of stations already described in this report, a network of salinity observation stations located in San Francisco, San Pablo, and Suisun Bays and throughout the Delta.

Data have been collected from this network of stations continuously since 1924 except during the period 1941-1943 when miscellaneous series of samples were collected. Beginning in 1944 the network has been maintained under a cooperative agreement with the U. S. Bureau of Reclamation. Samples are collected, when possible, at four-day intervals, one and one-half hours after high-high tide and analyzed for the concentration of the chloride ion. (Chloride is selected because it is the major constituent of sea water and because its analytical determination is quite simple.) Results are issued monthly to all interested agencies and individuals in the Delta area to keep them advised of prevailing conditio They also serve as an aid to the U. S. Bureau of Reclamation in de termining releases from its Central Valley Project reservoirs.

The data presented in this bulletin were collected at 26 stations for the water year October 1, 1961 -- September 30, 1962. Data for prior years are published in Department of Water Resource Bulletin No. 23 series entitled "Surface Water Flow for (year)".

The records for the 1962 water year are listed in tabular form in Appendix B. Also included is a description of the location of the various stations and a tabulation of the maximum observed salinity at them during 12 selected years. The location of the sampling stations and a delineation of the maximum seasonal encroachment of salinity in the Delta of water having 1,000 parts of chloride per million parts of water for these same 12 years are shown on Plate 2. The line for 1938 depicts encroachment during a year when runoff was far above normal prior to operation of the Central Valley Project. Those for 1952, 1956, and 1958 show the limits of encroachment in years when runoff was far above normal since operation of the Central Valley Project began. The line for 1944 typifies the years just preceding the Project. Lines for 1931 and 1939 demonstrate the limits of encroachment in two years when runoff was well below normal prior to the Project. The year 1955 was a water year of subnormal runoff occurring since the Project was placed in operation. The years 1959, 1960, and 1961 are the three most recent (also "dry") years; and 1962 is, of course, the current year. As will be noted, the limit of encroachment in 1962 was considerably west or downstream of the limits for the three previous years.

Tulare Lake Basin Subregion (5d)

In the Tulare Lake Basin, the principal streams included in the network are (from north to south) the Kings, Kaweah, Tule, and Kern Rivers. All are tributary to the San Joaquin Valley from the east side. West side tributaries, and those stemming from the

Tehachapi Mountains at the south end of the valley, contain water only when precipitation is very heavy and consequently are not included in the program. During 1962, there were nine stations in operation.

Waters of the four streams mentioned are generally calciu bicarbonate in character with low concentrations of total dissolved solids. The Kings and Kaweah Rivers produce water which is soft, while that produced by the Tule and Kern Rivers ranges from soft to moderately hard. Total dissolved solids in the Tule and Kern River are also somewhat higher than that of the Kings and Kaweah Rivers with values up to 328 ppm for the Tule River and 257 ppm for the Kern River.

In 1962, the trend toward increased mineral concentration which developed after 1958 in waters of the Kern River was reversed and mineral concentrations were substantially lower than in 1961. However, while peak values at two of the three stations on the Kern River occurred late in 1961, the peak values for station 36a, Kern River below Isabella Dam, were not recorded until January-February 1962. It is possible that this lag in maxima is due to a delay in the release of flow from reservoir storage. The value for specific conductance reported for this station in February (411 micromhos) was a new maximum value of record.

Lahontan Region (No. 6)

The Lahontan Region, which comprises that area situated between the California-Nevada border and the Sierra Nevada Mountain and extends from the Oregon border on the north to the southern

boundary of the Mojave River Basin, contains 12 surface water quality sampling stations located on five streams. These streams are (from north to south) the Susan, Truckee (including Lake Tahoe), Carson, Walker, and Mojave Rivers.

Waters of the Susan, Truckee, Carson, and Walker Rivers are calcium bicarbonate in character, of low mineral concentration, and soft. Total dissolved solids in the Susan River at Susanville (station 17b) range from 40 to 370 ppm. In the other streams, values for total dissolved solids are lower yet. At Lake Tahoe, the range is from 45 to 95 ppm. In April 1962, maximum values for total dissolved solids (286 ppm) and boron concentration (0.5 ppm) were reported for station 116a, Walker River, East near Bridgeport. However, it should be noted that since the magnitude of these concentrations is so low, the fact that they are maximum values of record is of little consequence.

The Mojave River, located at the southern end of the region, is sodium-calcium bicarbonate in character, soft to moderately hard, with concentrations of total dissolved solids ranging up to almost 400 ppm. In March 1962, a new maximum value for total dissolved solids (315 ppm) was reported for the uppermost station, Mojave River near Victorville,(station 67).

Colorado River Basin Region (No. 7)

Fourteen stations on four streams and one lake are maintained in the Colorado River Basin Region to monitor surface water quality. The sources of water and the number of stations on each source are as follows: Colorado River (7), Whitewater River (2),

New River (2), Alamo River (2), and Salton Sea (1). The Colorado River stations, except for station 56d, Colorado River at Colorado River Aqueduct Intake (Lake Havasu), are visited twice each year while the remaining stations in the region are visited bimonthly on the odd-numbered month. Station 56d is sampled monthly. Additional data for other stations on the Colorado River are collected and published by the U. S. Public Health Service.

Since the Colorado River is the primary source of water supply in this region, the quality of water in the Alamo, New, and Whitewater Rivers (except in its upper reaches) and the Salton Sea is strongly influenced by the quality of the water diverted from the Colorado River. Accordingly, quality conditions in the various streams are discussed in parallel with the flow and distribution of water in the region beginning with the uppermost station on the Colorado River in California and ending at the Salton Sea, the natural terminous for much of the water draining the area of use in California.

Colorado River

The Colorado River is a regulated stream; consequently, for the most part, variations in the mineral quality of the waters have been much less erratic in comparison to the variations reported for many other streams. However, in recent years, a marked change in quality has taken place in the lowermost reach of the river and this will be discussed in a later paragraph.

Waters of the Colorado River are sodium-calcium sulfate in character and very hard. Mineral concentrations show a definite

pattern of increase between the uppermost and lowermost of the seven stations in operation. Prior to the marked change in quality at the lower stations, values for total dissolved solids ranged from 588 to 858 ppm at the near Topock (54) station to between 707 and 1,090 ppm at the below Morelos Dam (56b) station. Total hardness in the stream has varied between 250 and 462 ppm and sulfate concentration between 246 and 404 ppm for the seven stations. During 1962, data collected indicate that the trend toward increased mineral concentration, which developed following the higher than usual flows of 1958, continued. However, the 1962 values were lower than those reported during the period 1955-1957 when maximum concentrations were found.

Beginning in 1961, mineral concentrations considerably in excess of those reported earlier have been found at the two lowermost stations on the Colorado River, station 56, at Yuma, Arizona, and station 56b, below Morelos Dam. Up to this time, maximum values for total dissolved solids for these stations had been 1,050 and 1,090 ppm, respectively; however, since then, values have ranged from 2,343 to 3,664 ppm at the Yuma station and from 1,510 to 2,082 ppm at the Morelos Dam station. Similarly, the concentrations of the individual constituents are much larger. The chloride concentrations, in particular, have increased considerably, and at the Yuma station are five times higher than the previously reported maximum value (176 ppm). In addition, the waters have changed in chemical character to where they are now sodium chloride waters. These increases are due to large amounts of highly mineralized irrigation drainage water from the Wellton-Mohawk Project, which enters

the Colorado River upstream from Yuma, Arizona. In 1962, maximum values of record for most of the major mineral constituents were established at these stations. By way of illustration, the maximum values for total dissolved solids and chlorides at the Yuma station were 3,664 and 1,254 ppm, respectively, and at the Morelos Dam station were 2,082 and 673 ppm, respectively.

New and Alamo Rivers

The New and Alamo Rivers serve as drainage channels for the Imperial Valley which receives its water supply from the Colorado River. They originate in Mexico and flow northward into the Salton Sea. Streamflow in them consists almost entirely of waste water, primarily irrigation return water. They bear the sodium sulfate-chloride characteristics of the Colorado River, although the New River is predominantly sodium chloride. The waters are highly mineralized and extremely hard. In January 1962, new maximum values of record were established for total dissolved solids (3,924 ppm) at station 58, New River at Westmorland, and for total dissolved solids (3,230 ppm), chlorides (1,000 ppm), and sulfate (853 ppm) at station 60, Alamo River near Calipatria.

Whitewater River

Native waters in the Whitewater River, which flows southeasterly into the Salton Sea, are calcium bicarbonate with mineral concentrations (212-285 ppm range in total dissolved solids) much lower than those found in the other streams described for this region. However, flow in the lower reach of the river is maintained

by irrigation return from the Colorado River supply system as well as other waste waters, and, as it enters the Salton Sea, the waters resemble in mineral quality those of the New and Alamo Rivers.

Salton Sea

Waters of the Salton Sea, the terminous for much of the flows utilized in the region, are sodium chloride and similar in mineral concentration to ocean water. However, the calcium and sulfate concentrations are higher and the chloride concentrations are lower than ocean water. In 1962, total dissolved solids varied from 34,400 to 37,664 ppm.

Santa Ana Region (No. 8)

There are eight stations located in this region and all are on the Santa Ana River and three of its tributaries. However, hydrologic conditions at one of the stations, Lake Elsinore, are such that it is treated separately from the other seven stations. There are a number of substantial waste discharges entering the Santa Ana River and its tributaries and, since the natural flow is small when compared to other streams, they influence considerably the quality of water flowing in the river.

Waters of the Santa Ana River, as measured at station 51b, near Mentone (the uppermost station), are of excellent mineral quality (total dissolved solids vary from 95 to 200 ppm), soft, and calcium bicarbonate in character. As they pass through the highly developed San Bernardino-Riverside area, the contribution of waste water alters substantially their quality and at the remaining three stations they become calcium-sodium bicarbonate and calcium-sodium

bicarbonate-chloride in character. They also become very hard with values for total hardness ranging from 131 to 408 ppm. Total dissolved solids have ranged from 243 to 830 ppm. Occasionally boron at these stations has exceeded 0.5 ppm.

Flow in Warm Creek and in Chino Creek consists mostly of wastes discharged from the San Bernardino and Chino sewage treatment plants respectively. Water at station 50b, Warm Creek at Colton, is calcium bicarbonate-chloride and moderately hard with total dissolved solids ranging from 320 to 770 ppm. Chino Creek water is calcium-sodium bicarbonate in character and usually very hard. Total dissolved solids vary between 150 and 945 ppm.

The eighth station in the Santa Ana Region is Lake Elsinore near Elsinore (station 89). The outlet of Lake Elsinore is Temescal Creek, a tributary of the Santa Ana River near Prado Dam. There has seldom been any water in Lake Elsinore since regular sampling began (February 1952) and no observed flow in Temescal Creek throughout the period of record. Accordingly, few samples of the lake's waters have been collected over the years and the mineral quality has varied considerably. However, mineral concentrations have invariably been high, unsuitable for recognized beneficial uses.

In general, the significant changes in the quality of surface water in the Santa Ana Region during 1962 are attributable to the heavy rains which occurred early in the year. These rains produced flow in Warm Creek at San Bernardino (station 50c) for the first time since May 1958. The water was calcium bicarbonate, soft, and had a total dissolved solids content of 74 ppm. The stream ceased to flow a few weeks later.

The heavy rains of February and March 1962 also produced inflow to Lake Elsinore and a sample was collected from the lake in March, the first since May 1959. The total dissolved solids concentration was 21,676 ppm and the water was sodium chloride in character with sulfate a secondary anion. For comparison, the total dissolved solids concentration in May 1959 was 29,893 ppm. By May 1962 the lake was dry again.

San Diego Region (No. 9)

Since streamflow in the San Diego Region is minimal, the nine stations in the region are visited bimonthly. In fact, there was no flow at two of the stations, San Dieguito River near San Pasqual (64) and Tia Juana River at International Boundary (66), during 1962. In addition, five other stations were reported as dry much of the year. One new station, San Diego River at Mission Gorge Road (65c), was added to the network in this region in 1962. This station was established to more effectively monitor the quality of water flowing in the San Diego River.

The quality of surface waters in the San Diego Region varies considerably from stream to stream. Except during periods of runoff from storms, streamflow at most locations consists mainly of waste water discharged from municipal and industrial waste treatment facilities which have considerable bearing on the quality of water in the streams. Since these streams roughly parallel one another from the Santa Margarita River on the north to the Tia Juana River on the south, they will be discussed in that general order.

Waters of the Santa Margarita River are sodium-calcium bicarbonate-chloride in character, very hard, with mineral

concentrations ranging from 520 to 980 ppm, total dissolved solids. In the San Luis Rey River, the waters are calcium-sodium sulfate-bicarbonate, moderately hard to very hard, with somewhat lower mineral concentrations than the Santa Margarita River. Total dissolved solids vary from 320 to 610 ppm.

Streamflow in Escondido Creek near Harmony Grove (station 63) is primarily effluent from the city of Escondido sewage treatment plant. It is sodium chloride-sulfate in character and very hard. Total dissolved solids generally exceed 1,000 ppm and the chloride concentration is seldom less than 200 ppm. The boron concentration usually is in excess of 0.5 ppm and has been as high as 1.2 ppm.

Waters of the San Dieguito River below San Pasqual Valley (station 64) are sodium chloride or sodium bicarbonate in type with calcium as the secondary cation. They are moderately hard to very hard and mineral concentrations range from 130 to 760 ppm, total dissolved solids. There has been no flow at this station since May 1958.

During 1962, there were three stations in operation in the San Diego River Basin, two on the San Diego River itself and one on Forester Creek. Natural flow of substantial magnitude in the basin occurs only after intense storms and the bulk of the flow is composed of effluent from a number of sewage treatment plants which discharge to the river and its tributaries. Waters of the San Diego River are sodium chloride-sulfate and very hard. Total dissolved solids range between 900 and 2,800 ppm; values for chloride concentration usually exceed 300 ppm and those for boron concentration

usually are greater than 0.5 ppm but seldom exceed 1.0 ppm. A sample of natural runoff collected during a major storm in April 1958 contained the following concentrations: total dissolved solids - 241 ppm; chlorides - 54 ppm; and total hardness - 70 ppm. The water was sodium chloride-sulfate in character.

In March 1962, completion of the El Cajon sewer line to a point below station 65, San Diego River at Old Mission Dam, resulted in a decrease in flow at this station and in the cessation of flow at station 65a, Forester Creek at Mission Gorge Road. For this reason a new station, San Diego River at Mission Gorge Road (65c), was established in July 1962 and the Forester Creek station was discontinued at the close of the year.

Waters of Spring Valley Creek near La Pressa (station 65b), a tributary of the Sweetwater River, have generally been of very poor quality. They are sodium chloride in character and extremely hard with values for total hardness usually ranging from 480 to 1,100 ppm. Total dissolved solids have varied from 1,540 to 3,280 ppm and values for chloride concentration have been in excess of 410 ppm consistently.

Flow in the Tia Juana River in California is rare, occurring only after heavy rains. The water at station 66, Tia Juana River at International Boundary, is sodium chloride-bicarbonate and mineral concentrations vary considerably with total dissolved solids ranging from 340 to 1,625 ppm.

During 1962, significant changes were recorded at two stations in the San Diego Region. In February 1962, flow was reported at station 62, San Luis Rey River near Pala, the first since

January 1960. Maximum values of record for total dissolved solids (610 ppm), total hardness (294 ppm), and sulfate concentrations (198 ppm) were established. Previous maximum values for these constituents were 548, 281, and 179 ppm, respectively. The river was reported dry during the remainder of the year. In March 1962, minimum values of record for total dissolved solids (684 ppm), total hardness (244 ppm), chloride concentration (194 ppm), and most of the other common salts were established for station 65b, Spring Valley Creek near La Pressa. Following the recordation of these minimum values, mineral concentrations rose to a level slightly above that reported for 1961.

CHAPTER III. OTHER QUALITY CHARACTERISTICS

In addition to the characteristics imparted by the common mineral salts, there are other characteristics, both mineral and otherwise, which are necessary to adequately define the quality of the State's surface waters. This is particularly important where certain uses of the waters are involved.

In this chapter, these additional quality characteristics as determined in 1962 are described. Included are presentations on the minor constituents (heavy metals), arsenic, detergents (ABS), and dissolved oxygen as well as discussions of bacteriological quality and radioactivity.

Minor Constituents (Heavy Metals)

In 1962, a new procedure was adopted for the examination of surface waters for concentrations of heavy metals. Sixty-seven stations were selected for which spectrographic analyses are performed on samples collected each May and September. Determinations are made for 17 metals, and, where warranted, additional chemical analyses are made. The spectrographic analyses are performed by the U. S. Geological Survey, Quality of Water Branch, at its laboratory in Sacramento, California. Quantitative results are presented in micrograms per liter, essentially parts per billion. Results for 1962 are presented in Appendix B, Tables B-19 through B-27.

The following tabulation lists the maximum values for the various constituents analyzed and the stations at which they were found. There were no values above the minimum level of detection for Beryllium, Gallium, Germanium, and Zinc.

MAXIMUM CONCENTRATIONS OF VARIOUS METALS IN 1962
(By spectrograph)

Metal	Concentration parts per billion	Station (number)
Aluminum (Al)	255	Pit River near Canby (17a)
Bismuth (Bi)	29	Delta Cross Channel near Walnut Grove (98)
Cadmium (Cd)	13	Warm Creek near Colton (50b)
Cobalt (Co)	207	Kings River below Peoples Weir (34)
Chromium (Cr)	12	Coyote Creek near Madrone (82)
Copper (Cu)	62	Warm Creek near Colton (50b)
Iron (Fe)	237	Nacimiento River near San Miguel (43b)
Manganese (Mn)	215	Los Angeles River at Long Beach (48)
Molybdenum (Mo)	8.3	Rio Hondo at Whittier Narrows (49)
Nickel (Ni)	61	Warm Creek near Colton (50b)
Lead (Pb)	17	Feather River at Nicolaus (20)
Titanium (Ti)	9.8	Pit River near Canby (17a)
Vanadium (V)	15	Pit River near Canby (17a)

As might be expected, the more common metals found in water, aluminum, iron, and nickel, were reported for almost all stations at concentrations above the minimum levels of detection.

For two of the constituents, cadium and manganese, concentrations at certain locations exceeded the limiting values for drinking water prescribed by the U. S. Public Health Service in its Drinking Water Standards. The value for cadium is 0.01 ppm (or 10 ppb). At two stations, Warm Creek near Colton (50b) and Coyote Creek near Madrone (82), the concentrations for cadmium were reported as 13 ppb and 12 ppb, respectively. The latter value was found in May 1962 while the former was reported for September 1962. The recommended limit for manganese is 0.05 ppm or 50 ppb. Concentrations in excess of 50 ppb were found at the following locations:

Station	Manganese Concentration (ppb)
Los Angeles River at Long Beach (48)	215
Escondido Creek at Harmony Grove (63)	135 and 69
Santa Ana River near Norco (51e)	120
Salinas River near Spreckels (43)	103
Alameda Creek near Niles (73)	70

Arsenic

Determinations for the occurrence and concentration of arsenic are made semiannually at many of the stations maintained under this program. During 1962, determinations were made for 91 stations. Measurable concentrations of arsenic were found at 11 locations in May and at 14 locations in September. However, with the exception of two stations, the concentrations were well below the mandatory limit of 0.05 ppm prescribed by the U. S. Public Health Service Drinking Water Standards.

The first is station 48, Los Angeles River at Pacific Coast Highway, where excessive concentrations of arsenic repeatedly have been found and the waters are generally of such quality that they are unsuitable for beneficial use. The arsenic concentrations reported at this station were 1.0 ppm (May) and 3.5 ppm (September).

In September 1962, an arsenic concentration of 0.1 ppm was reported at station 31, Tuolumne River at Tuolumne City, which is located near the confluence with the San Joaquin River. There appears to be no explanation for this and it should be noted that this is the first time a measurable concentration for arsenic has been reported for this location.

ABS (Detergents)

During 1962, determinations of the concentration of ABS (alkyl benzene sulphonate, the active agent in popular synthetic detergents) were made for 68 stations mostly on a semiannual basis. Measurable concentrations were detected at 23 stations. No measurable concentrations in excess of 0.15 ppm were found at stations in the North Coastal (No. 1), San Francisco Bay (No. 2), Central Valley (No. 5), or Lahontan (No. 6) Water Pollution Control Regions. In fact, waters at a total of only eight stations in these areas (about two-thirds of the area of the entire State) were reported to contain ABS. In addition, at only one of these stations, Tuolumne River at Tuolumne City (station 31), was ABS found more than once during the year. A concentration of 0.1 ppm was found at this station in May and September.

Stations where the larger concentrations (0.5 ppm and over) were found are those at which surveillance for ABS is usually more frequent than twice yearly. They are also stations at which flows are known to contain effluent from sewage treatment plants. The highest concentrations of ABS were found in waters of the Salinas River near Spreckels (2.1 ppm in September), Los Angeles River at Long Beach (2.1 ppm in September), Warm Creek near Colton (1.8 to 6.2 ppm throughout the year), Santa Ana River near Norco (0.51 to 1.56 ppm except 0.05 ppm in December), Escondido Creek at Harmony Grove (1.8 to 4.0 ppm), San Diego River at Old Mission Dam (1.1 to 5.0 ppm), and San Diego River at Mission Gorge Road (4.8 to 6.0 ppm).

The highest concentrations of ABS in the State's surface waters were found at station 65b, Spring Valley Creek near La Pressa,

located near San Diego. Values for ABS ranged from 5.7 ppm to 12.2 ppm. The latter value is a maximum of record for this station and for all stations in the State since September 1960 when data on ABS was first collected.

Dissolved Oxygen

Determination of the oxygen content of surface water has for several decades been the classic means for assessing the ability of a stream to assimilate waste. Persistent low levels of oxygen in solution are indicative of pollution or the threat of pollution.

Among the serious consequences resulting from a depleted supply of oxygen in water is its effect on the propagation of fish-life. The presence of oxygen in solution in surface waters in sufficient quantity is necessary for the support of fish and aquatic life; the latter are in turn necessary for the removal of organic waste. In other words, where the dissolved oxygen concentration is low, aquatic life are inhibited in their ability to remove organic material and fish are not only deprived of the oxygen required to survive but also are limited by the availability of aquatic life, their food supply. Included in general criteria proposed for the quality of fresh water that will support a "good mixed fish fauna" is the requirement that dissolved oxygen concentration be at least 5 ppm, although higher concentrations are desirable.

A determination of the dissolved oxygen content is made each time a sample is collected at all stations in the network maintained under this program. During 1962, concentrations below 5.0 ppm were found at 15 stations. However, at the majority (nine) of

these stations, values below 5.0 ppm were found only once. Values below 5.0 ppm were more frequently reported for the following stations: Salinas River near Spreckels (43), Los Angeles River at Long Beach (48), Tuolumne River at Tuolumne City (31), New River at International Boundary (57), Santa Ana River near Norco (51), and San Diego River at Old Mission Dam (65). Except for the Tuolumne River station, where only part of the flow stems from sewage, flow at these stations consists mainly of sewage or industrial waste.

The lowest values (down to 0.0 ppm) were reported at station 48, Los Angeles River at Long Beach, where, as has been mentioned several times in this report, the water is of such poor quality most of the time that it is unusable for recognized beneficial uses.

Other stations where lower values, those below 4.0 ppm, were reported were: station 43, Salinas River near Spreckels (three times); station 31, Tuolumne River at Tuolumne City (2.9 ppm in January); station 65, San Diego River at Old Mission Dam (3.6 ppm in January); and station 65c, San Diego River at Mission Gorge Road (3.6 ppm in September).

Bacteriological Quality

As a part of the program for determining the quality of the State's surface waters and the changes in their quality, bacteriological examination is made of samples collected at the majority of stations. Specifically, determination is made for the presence of coliform bacteria, the group which includes the pathogenic organisms associated with fecal contamination. Results are expressed

as the most probable number (MPN) of coliform bacteria per milliliter (ml) of sample.

The reader is cautioned that the results listed herein are not necessarily indicative of fecal contamination. Further substantiation of contamination requires additional, frequent sampling and more complex laboratory examination. As used in this program, the values serve primarily to establish background conditions of bacteriological quality and as a means of detecting changes of substantial magnitude.

During 1962, samples for bacteriological analyses were collected at 180 stations. As is to be expected, coliform bacteria were reported as present at all locations. At most stations and for much of the time, this indicates only that the possibility of contamination exists. Consistently low values were reported for 25 stations. The minimums ranged from 0.022 to 6 MPN per ml and the maximums from 0.92 to 130 MPN per ml. The lowest values reported were for station 12, Sacramento River at Keswick, and station 70, Los Angeles Aqueduct near San Fernando (0.022 MPN per ml), and at the three stations on Lake Tahoe (0.045 MPN per ml).

Consistently high values were reported throughout the year at both stations on the New River in the Imperial Valley area and at station 48, Los Angeles River near Long Beach, and during the first one-half of the year at stations 51e, Santa Ana River near Norco; 51a, Santa Ana River below Prado Dam; and 65a, Forester Creek at Mission Gorge Road (San Diego County).

Raw sewage is known to flow past station 57, New River at International Boundary, which accounts for the high values reported

for this station (1962 maximum - 700,000 MPN per ml). As for those reported at the downstream station, New River near Westmoreland (58), the flow has been considerably diluted by the time it reaches this point affording some opportunity for self-purification (maximum value - 70,000 MPN per ml). As has been mentioned several times, flow in the Los Angeles River at Long Beach consists almost entirely of sewage and industrial waste. The maximum value reported for this station was also 700,000 MPN per ml.

Flow in Forester Creek consists entirely of sewage and the maximum 1962 value was 240,000 MPN per ml. Much of the flow in the Santa Ana River at the Norco and Prado Dam stations is also composed of sewage. The maximum value for both stations was 70,000 MPN per ml.

Following is a tabulation of the maximum values for 1962 for coliform density at the 149 stations not previously discussed.

Maximum value reported (MPN per ml)	Number of stations reporting maximum value
210	1
230	15
240	4
290	1
460	1
620	19
650	1
700	7
1300	4
2100	1
2300	1
2400	30
7000	41
7000*	22

* Reported symbolically as "greater than" 7000.

Radioactivity

In addition to the information collected regarding the physical and chemical characteristics of the State's surface waters, data are also obtained under this program to determine the existing or background levels of radioactivity present in them. Such information will serve as a basis for evaluating the effects, if any, of future employment of radioactive substances, for whatever purpose, on California's water resources. Data have been collected at most stations twice yearly since the fall of 1952.

During May and September 1962, samples were collected for analyses of the level of radioactivity present at a total of 196 stations. In all instances, the concentrations were below the recommended criteria employed to judge the effects of radioactivity. Following is a tabulation of the maximum concentrations of alpha and beta activity found in 1962.

	Concentration* (micromicrocuries/liter)	Location (station)
May 1962		
Dissolved Alpha	1.7	Santa Ana River, Mentone (51b)
Solid Alpha	7.4	Los Angeles River, Long Beach (48)
Dissolved Beta	23.3	Alameda Creek, Niles (73)
Solid Beta	19.3	Mad River, Arcata (6a)
September 1962		
Dissolved Alpha	1.9	Santa Ana River, Mentone (51b)
Solid Alpha	1.4	Spring Valley Creek, La Pressa (65b)
Dissolved Beta	85.6	Los Angeles River, Long Beach (48)
Solid Beta	29.4	Los Angeles River, Long Beach (48)

* Statistical confidence limits omitted.

The above tabulation indicates that 3 of the 8 values listed were found at the same location, namely the Los Angeles River at Long Beach. Since waters at this station are composed almost entirely of industrial waste water (except during periods of excessive storm runoff) which is of such poor quality (from a mineral standpoint) as to be unacceptable for beneficial use, these values are of small significance.

Values for concentrations of radioactivity in water at the 196 stations sampled in 1962 are listed in Tables B-28 through B-36 of Appendix B. Additional data on radioactivity in California waters are published by the California State Department of Public Health, Bureau of Radiological Health, in its publication, "Radiological Health News", and by the U. S. Public Health Service.

A P P E N D I X A

PROCEDURES AND CRITERIA

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Field Methods and Procedures

Agencies which participated in the field sampling program during 1962 are listed below, together with the number of stations sampled by each agency.

Agency	Number of stations sampled
State Department of Water Resources	194
United States Corps of Engineers	7
United States Bureau of Reclamation	20
United States Geological Survey	1*
City of Long Beach	1
City of Los Angeles	
Department of Public Health	1
Department of Water and Power	1
The Metropolitan Water District of Southern California	2
City of San Bernardino	2
City and County of San Francisco	5
Total	234

The frequency of sampling at each station varies considerably and is dependent on historic records, the need for the station, and the type of data specifically desired. Accordingly, the sampling frequency will range from semiannually to continuous.

A partial mineral analysis and physical examination is made for samples collected each time a station is visited. Twice

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* The U. S. Geological Survey also collected additional samples at seven of the locations listed in the Department of Water Resources total.

each year, at the beginning and closing of the season of heavy use (essentially the irrigation season), the samples collected are subject to complete mineral analysis (in lieu of partial mineral analysis), analysis for detergents and arsenic content, and radioassay. Heavy metal analysis (by spectrograph) are made for 67 selected stations semiannually. Bacteriological analyses are made of samples collected at primary stations. From time to time, other analyses may be substituted. The samples collected for bacterial examination are kept in portable ice boxes until shipment or delivery to the laboratory. Every effort is made to get the samples to the laboratory as quickly as possible.

At the time the samples are collected for laboratory examination, field determinations are made for dissolved oxygen (DO) by the modified Winkler method, water temperature, and pH. Visual inspection is made of the stream or lake and the physical conditions are noted.

Where possible, the sampling stations have been selected so as to be at or near stream gaging stations so that gage heights can also be recorded at the time the water samples are collected. Instantaneous stream discharges at the time of sample collection are then obtained.

Laboratory Methods and Procedures

Methods of mineral and bacterial analysis, in general, are those described in the American Public Health Association publication, "Standard Methods for the Examination of Water and Sewage", 11th Edition, 1960. In some cases, the methods described in the following publications also have been employed.

United States Geological Survey. "Methods for Collection and Analysis of Water Samples." Water Supply Paper 1454. 1960.

California State Department of Public Works, Division of of Water Resources. "Methods of Analysis." October 1955.

The following tabulation indicates the constituents analyzed for in the various types of analysis performed in connection with this program.

Mineral and Related Analysis (Wet analysis)	Mineral Analysis (By spectrograph)
Specific Conductance	Aluminum
pH	Beryllium
Total Dissolved Solids	Bismuth
Turbidity	Cadmium
ABS (detergent)	Chormium
Hardness	Cobalt
Calcium	Copper
Magnesium	Gallium
Sodium	Germanium
Potassium	Iron
Carbonate	Lead
Bicarbonate	Manganese
Sulfate	Molybdenum
Chloride	Nickel
Nitrate	Titanium
Fluoride	Vanadium
Boron	Zinc
Silica	
Phosphate	
Arsenic	

Bacteriological Analysis	Radiological Analysis
Coliform	Dissolved Alpha
	Solid Alpha
	Dissolved Beta
	Solid Beta

In special cases, other constituents are analyzed. Where necessary, certain of the constituents listed under Spectrographic Analysis are determined chemically.

Water Quality Criteria

Criteria presented in the following sections can be utilized in evaluating the quality of water relative to existing or anticipated beneficial uses. It should be noted that these criteria are merely guides to the appraisal of water quality. Except for those constituents which are considered toxic to human beings, these criteria should be considered as suggested limiting values. A water which exceeds one or more of these limiting values need not be eliminated from consideration as a source of supply, but other sources of better quality water should be investigated.

Domestic and Municipal Water Supply

In general, water that is used for drinking or culinary purposes should be clear, colorless, odorless, pleasant to the taste, and free from toxic compounds. It should not contain excessive quantities of dissolved minerals, and must be free from pathogenic organisms.

Chapter 7 of the California Health and Safety Code contains provisions which relate to water supplies used for domestic purposes throughout the State. One of these provisions covers standards for quality of domestic water supplies. In essence, this section (No. 4010.5) refers to the drinking water standards promulgated by the U. S. Public Health Service for water used on interstate carriers as of March 1946.

Recently the U. S. Public Health Service revised (updated) its drinking water standards to take cognizance of man's changing environment and its effect on water supplies. Portions of these

new standards are presented herein. The complete standards, which cover definition of terms, bacteriological quality, physical characteristics, chemical characteristics, radioactivity, and recommended analytical methods, are described in publication No. 956 of the U. S. Department of Health, Education, and Welfare, Public Health Service, "Public Health Service Drinking Water Standards 1962".

Mineral Concentrations. The following tabulation gives the limiting concentrations of chemical constituents for drinking water, as prescribed by the U. S. Public Health Service.

UNITED STATES PUBLIC HEALTH SERVICE
DRINKING WATER STANDARDS 1962

Constituent	Mandatory limit in ppm
Arsenic (As)	0.05
Barium (Ba)	1.0
Cadmium (Cd)	0.01
Hexavalent chromium (Cr^{+6})	0.05
Cyanide (CN)	0.2
Lead (Pb)	0.05
Selenium (Se)	0.01
Silver (Ag)	0.05

Constituent	Nonmandatory, but recommended limit in ppm
Alkyl benzene sulphonate (detergent)	0.5
Arsenic (As)	0.01
Carbon chloroform extract (exotic organic chemicals)	0.2
Chloride (Cl)	250
Copper (Cu)	1.0
Cyanide (CN)	0.01
Fluoride (F)	See following page
Iron (Fe)	0.3
Manganese (Mn)	0.05
Nitrate (NO_3)	45
Phenols	0.001
Sulfate (SO_4)	250
Total dissolved solids	500
Zinc (Zn)	5

Interim standards for the upper limits of certain mineral constituents were adopted by the California State Board of Public Health in December 1959. Based on these standards, temporary permits may be issued for drinking water failing to meet the U. S. Public Health Service Drinking Water Standards, provided the mineral constituents in the following tabulation are not exceeded.

UPPER LIMITS OF TOTAL SOLIDS AND SELECTED MINERALS IN DRINKING WATER AS DELIVERED TO THE CONSUMER
(parts per million)

	Permit	Temporary Permit
Total Solids	500 (1000)*	1500
Sulfates (SO_4)	250 (500)*	600
Chlorides (Cl)	250 (500)*	600
Magnesium (Mg)	125 (125)*	150

Fluoride Concentration. The California State Board of Public Health has defined the maximum safe amounts of fluoride ion in drinking water in relation to mean annual temperature.

Mean annual temperature	Mean monthly fluoride ion concentration (ppm)
50° F	1.5
60° F	1.0
70° F and above	0.7

Hardness. Even though hardness of water is not included in the drinking water standards, it is of importance in domestic and industrial uses. Excessive hardness in water used for domestic purposes causes increased consumption of soap and formation of scale in pipes and fixtures. The following tabulation for degrees of hardness is suggested.

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* Numbers in parentheses are maximum permissible to be used only where no other more suitable waters are available in sufficient quantity for use in the system.

Range of hardness expressed as $CaCO_3$, in ppm	Relative classification
0 - 100	Soft
101 - 200	Moderately hard
Greater than 200	Very hard

Radioactivity. As part of its new drinking water standards, the U. S. Public Health Service recently announced limits on concentrations of radioactivity in drinking waters. These limits are as follows:

Radionuclide	Recommended maximum limits micromicrocuries per liter
Radium 226	3
Strontium 90	10
Gross beta activity	1000*

According to the International Commission on Radiological Protection[1/], tentatively concurred in by the National Committee on Radiation Protection[2/], if the Radium-226 and Radium 228 activity in water is substantially less than 10 uuc/l, the maximum permissible concentration of otherwise unidentified radionuclides in water for individuals in the population at large may be considered to be 100 uuc/l.

For the purposes of the environmental survey of surface water made for this report, it has been assumed that the total dissolved and solid alpha activity is derived from Ra^{226} and Ra^{228}.

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* In the known absence of strontium-90 and alpha emitters.

1/ "Report on Decisions of the 1959 Meeting of the International Committee on Radiological Protection (ICRP)." Radiology, Vol. 74, No. 1, January 1960, pp. 116-119.

2/ "Somatic Radiation Dose for the General Population, Ad Hoc Committee of the National Committee on Radiation Protection and Measurements." Science, Vol. 131, No. 3399, February 19, 1960, pp. 482-486.

Industrial Water Supply

Water quality criteria for industrial waters are as varied and diversified as industry itself. Food processing, beverage production, pulp and paper manufacturing, and textile industries have exacting requirements. However, many cooling or metallurgical operations permit the use of poor quality water. In general, where a water supply meets drinking water standards, it is satisfactory for industrial use, either directly or following a limited amount of polishing treatment by the industry.

Irrigation Water

Criteria for mineral quality of irrigation water have been developed by the Regional Salinity Laboratories of the U. S. Department of Agriculture in cooperation with the University of California. Because of diverse climatological conditions and the variation in crops and soils in California, only general limits of quality for irrigation waters can be suggested.

QUALITATIVE CLASSIFICATION OF IRRIGATION WATERS

Chemical properties	Class 1 Excellent to good	Class 2 Good to injurious	Class 3 Injurious to unsatisfactory
Total dissolved solids, in ppm	Less than 700	700 - 2000	More than 2000
Conductance, in micromhos at 25° C	Less than 1000	1000 - 3000	More than 3000
Chlorides in ppm	Less than 175	175 - 350	More than 350
Sodium in percent of base constituents	Less than 60	60 - 75	More than 75
Boron in ppm	Less than 0.5	0.5 - 2.0	More than 2.0

These criteria have limitations in actual practice. In many instances a water may be wholly unsuitable for irrigation under certain conditions of use, and yet be completely satisfactory under other circumstances. Consideration also should be given to soil permeability, drainage, temperature, humidity, rainfall, and other conditions that can alter the response of a crop to a particular quality of water.

Fish and Aquatic Life

Water of suitable quality and quantity is a fundamental requirement for the existence of an abundant supply of fish and aquatic life. It is important that water quality conditions be such as to maintain an abundant supply of food required by fish and other desirable forms of aquatic life. Streams utilized for the propagation of fish and aquatic life should be free of toxic or harmful concentrations of mineral and organic substances and excessive turbidity. Extensive field and laboratory studies conducted by the U. S. Fish and Wildlife Service show that, among other things, the water in streams supporting a mixed fauna of fresh water fish such as bluegill, bass, crappie, and catfish should have the following properties:

(a) Dissolved oxygen not less than 5 ppm (at least 6 ppm for salmonids),

(b) pH range between 6.5 and 8.5,

(c) Ionizable salts, as indicated by conductivity, between 150 and 500 micromhos at 25° Centigrade, and in general not exceeding 1,000 micromhos,

(d) Ammonia not exceeding 1.5 ppm.

Mineral salts of high toxicity to fish are those of silver, mercury, copper, zinc, lead, cadmium, nickel, trivalent and hexavalent chromium, and others. Some pairs of toxicants, such as copper and zinc (also copper and cadmium, nickel and zinc), are far more toxic when combined than when they occur individually. Other toxic substances, when combined, neutralize each other through antagonism or chemical reaction (e.g., free cyanide combines with toxic heavy metal cations, such as nickel and copper ions, to form relatively harmless metallocyanide complexes).

Development and use of water resources, including the construction of dams for storage of water, frequently affect water temperatures which in turn affect fish and other aquatic life. Optimum water temperatures for cold water fish, such as trout and salmon, normally lie between 32° and 65° Fahrenheit. The cold water species are generally intolerant of temperatures above 75° Fahrenheit and will seek the lower temperature where possible. Warm-water fish such as minnows, carp, catfish, perch, sunfish, and bass normally live in water having temperatures ranging from near 32° to 86° Fahrenheit. Acclimatization enables certain warm water species to live in waters having temperatures as high as 90° Fahrenheit, although they will migrate, where possible, to waters below 86° Fahrenheit.

Chemical Classification of Waters

Waters are classified, with respect to mineral composition, in terms of the predominant ions. Specifically, the name of an ion is used where it constitutes at least half of its ionic group, expressed in equivalents per million (epm). Where no one ion fulfills

the requirement, a hyphenated combination of the two most abundant constituents is used. Thus a calcium bicarbonate water denotes that calcium constitutes at least half of the cations and bicarbonate represents at least half of the anions. Where calcium, though predominant, is less than half of the total cations with sodium next in abundance, and where bicarbonates are more than half of the total anions, the name is modified to calcium-sodium bicarbonate.

A P P E N D I X B

DATA FOR 1962

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TABLE B-1

SAMPLING STATION DATA AND INDEX

NORTH COASTAL REGION (NO. 1)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Antelope Creek near Tennant	1e	43N/1W-25	March 1959			93, 375
Big River near Mouth	8c	17N/17W-24	Jan. 1959			94, 377
Butte Creek near Macdoel	1d	45N/1W-30	March 1959			95, 375
Eel River near Dos Rios	5d	21N/13W-31	April 1958			96, 376
Eel River near McCann	5	2S/3E-3*	April 1951			97, 376
Eel River at Scotia	6	1N/1E-5*	April 1951			98, 357, 376
Eel River, Middle Fork at Dos Rios	5c	21N/13W-6	April 1958			99, 357, 376
Eel River, South Fork near Miranda	7	3S/4E-30*	April 1951			100, 376
Gualala River, South Fork near Annapolis	9a	10N/14W-21	Jan. 1959			101, 377
Klamath River above Hamburg Reservoir site	1c	46N/10W-14	Dec. 1958			102, 375
Klamath River below Iron Gate Dam	1f	47N/5W-17	Dec. 1961			103, 357, 375
Klamath River near Klamath	3	13N/2E-17*	April 1951			104, 357, 375
Klamath River near Seiad Valley	2b	46N/12W-3	Dec. 1958			105, 357, 375
Klamath River at Somesbar	2	11N/6E-4*	April 1951			106, 357, 375
Mad River near Arcata	6a	6N/1E-15*	Nov. 1958			107, 357, 376
Mattole River near Petrolia	7a	2S/2W-11*	Jan. 1959			108, 376
Navarro River near Navarro	8b	15N/16W-7	Jan. 1959			109, 377
Noyo River near Fort Bragg	10c	18N/17W-10	Jan. 1959			110, 377
Outlet Creek near Longvale	5b	21N/13W-31	May 1958			111, 376
Redwood Creek at Orick	3b	10N/1E-4*	Nov. 1958			112, 375
Russian River at Guerneville	10	8N/10W-32	April 1951			113, 357, 377
Russian River near Healdsburg	9	9N/9W-22	April 1951			114, 377
Russian River near Hopland	8a	14N/12W-36	April 1951			115, 377
Russian River, East Fork at Potter Valley Powerhouse	10a	17N/11W-6	June 1951			116, 377
Salmon River at Somesbar	2a	11N/6E-2*	Nov. 1958			117, 375
Scott River near Fort Jones	1b	44N/10W-28	Dec. 1958			118, 375
Shasta River near Yreka	1a	46N/7W-24	Dec. 1958			119, 375
Smith River near Crescent City	3a	16N/1E-10*	April 1951			120, 375
Trinity River near Burnt Ranch	4b	5N/7E-19*	April 1958			121, 376
Trinity River near Hoopa	4	8N/5E-31*	April 1951			122, 357, 376
Trinity River at Lewiston	4a	33N/8W-19	April 1951			123, 376
Van Duzen River near Bridgeville	5a	1N/3E-17*	April 1958			124, 376

a Except as indicated below, location is referenced to Mt. Diablo Base and Meridian
  * Humboldt Base and Meridian
b Beginning of record
c All stations sampled monthly
d All stations sampled by Department of Water Resources

TABLE B-2

SAMPLING STATION DATA AND INDEX

SAN FRANCISCO BAY REGION (NO. 2)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Alameda Creek near Niles	73	4S/1W-15	Dec. 1951		DWR	125, 359, 379
Arroyo Del Valle near Livermore	71	4S/2E-4	July 1958		DWR	126, 379
Carquinez Straits at Martinez	28a	2N/3W-13	March 1955		USBR	127
Coyote Creek near Madrone	82	9S/3E-9	Jan. 1952		DWR	128, 359, 379
Los Gatos Creek near Los Gatos	74	8S/1W-29	Dec. 1951		DWR	129, 379
Napa River near St. Helena	72	8N/5W-32	Dec. 1951		DWR	130, 359, 379
Sacramento River near Mallard Slough	15c	2N/1E-5	March 1955		USBR	131

a Location is referenced to Mt. Diablo Base and Meridian
b Beginning of record
c All stations sampled monthly
d DWR-Department of Water Resources; USBR-United States Bureau of Reclamation

TABLE B-3

SAMPLING STATION DATA AND INDEX

CENTRAL COASTAL REGION (NO. 3)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Carmel River at Robles Del Rio	83	16S/1E-82	July 1952			133, 381
Cuyama River near Garey	44a	10N/33W-25**	Oct. 1958			134, 381
Nacimiento River near San Miguel	43b	25S/11E-4	Oct. 1958			135, 361, 381
Pajaro River at Chittenden	77	12S/1E-12	Dec. 1951			136, 361, 381
Salinas River near Bradley	43c	23S/10E-15	Oct. 1958			137, 381
Salinas River at Paso Robles	43a	26S/12E-33	April 1951			138, 381
Salinas River near Spreckels	43	15S/3E-8	Apr. 1951-May 1957 - Apr. 1958			139, 361, 381
San Antonio River near Pleyto	43d	24S/9E-3	Feb. 1954			140, 381
San Benito River near Bear Valley Fire Station	77a	15S/7E-28	July 1958			141, 381
San Lorenzo River at Big Trees	75	10S/2W-26	Dec. 1951			142, 381
Santa Ynez River at Cachuma Reservoir	44b	6N/30W-19**	April 1958			143, 381
Santa Ynez River near Solvang	45a	6N/31W-22**	April 1951			144, 361
Soquel Creek at Soquel	76	11S/1W-10	Dec. 1951			145, 381
Uvas Creek near Morgan Hill	96	10S/3E-18	July 1952			146, 381

a Except as indicated below, location is referenced to Mt. Diablo Base and Meridian
  * Humboldt Base and Meridian
  ** San Bernardino Base and Meridian
b Beginning of record
c All stations sampled monthly
d All stations sampled by Department of Water Resources

TABLE B-4

SAMPLING STATION DATA AND INDEX

LOS ANGELES REGION (NO. 4)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Colorado River Aqueduct at La Verne	69	1S/9W-6	April 1951	[illegible]	MWD	147
Los Angeles Aqueduct near San Fernando	70	3N/15W-30	April 1951	M	LADW&P	14[illegible]
Los Angeles River at Long Beach	48	4S/13W-26	April 1951	M	LBHD	149, [illegible], [illegible]
Los Angeles River at Los Angeles	47	1S/13W-15	April 1951	M	LAHD	150, 151, [illegible]
Matilija Creek above Matilija Dam	45b	5N/23W	May 1953	M	DWR	152, [illegible]
Mission Creek at Whittier Narrows	49a	2S/11W-6	April 1951	M	DWR	153, 363, [illegible]
Piru Creek near Piru	46c	4N/18W-20	June 1957	M	DWR	154, 383
Rio Hondo at Whittier Narrows	49	2S/11W-6	April 1951	M	DWR	155, 363, 383
San Gabriel River at Azusa Power House	50d	1N/10W-22	March 1957	M	DWR	156, 384
San Gabriel River at Whittier Narrows	50	2S/11W-5	April 1951	M	DWR	157, 363, 383
Santa Clara River at Los Angeles-Ventura County Line	46	4N/17W-30	April 1951	M	DWR	158, 363, 383
Santa Clara River near Santa Paula	46a	3N/21W-12	April 1951	M	DWR	159, 363, 383
Santa Paula Creek near Santa Paula	46e	4N/21W-27	June 1957	M	DWR	160, 383
Sespe Creek near Fillmore	46d	4N/20W-12	June 1957	M	DWR	161, 383
Ventura River near Ventura	61	3N/23W-8	May 1951	M	DWR	162, 363, 384

a Location is referenced to San Bernardino Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, C-Composite of 24-hour samples taken each day
d MWD-Metropolitan Water District of Southern California; LADW&P-Los Angeles Department of Water and Power; LAHD-Los Angeles Health Department; LBHD-Long Beach Health Department; DWR-Department of Water Resources

TABLE B-5

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
American River at Fair Oaks	22d	9N/6E-13	March 1951 to Sep 30, 1962	D	USGS	163
American River at Fair Oaks			Jan. 1938	[illegible]	USBR	164
American River at Nimbus Dam	22a	9N/7E-16	Nov. 1958	M	DWR	165, 365, 387
American River at Sacramento	22	8N/5E-3	April 1951	M	DWR	166, 365, 387
American River, Middle Fork near Auburn	22b	12N/9E-6	July 1958	M	DWR	167, 387
American River, South Fork near Lotus	22c	11N/9E-11	July 1958	M	DWR	168, 387
Antelope Creek near Mouth	88c	26N/2W-17	Oct. 1958	M	DWR	169, 391
Antelope Creek near Red Bluff	88e	27N/2W-8	Oct. 1958	M	DWR	170, 391
Battle Creek near Cottonwood	88b	29N/2W-6	April 1958	M	DWR	171, 391
Bear River near Mouth	20b	13N/4E-20	Nov. 1958	M	DWR	172, 387
Bear River near Wheatland	78	13N/5E-3	Dec. 1951	M	DWR	173, 366, 390
Big Creek above Pine Flat Dam	33d	12S/25E-4	July 1960	M	USCE	174, 389
Big Chico Creek at Chico	85a	22N/1E-28	Jan. 1959	M	DWR	175, 390
Big Chico Creek near Chico	85	22N/2E-9	July 1952	M	DWR	176
Butte Creek near Chico	84	22N/2E-36	July 1952	M	DWR	177
Cache Creek near Capay	80	10N/2W-8	Dec. 1951	M	DWR	178, 366, 390
Cache Creek near Lower Lake	42	12N/6W-6	April 1951	M	DWR	179, 366, 390
Cache Creek, North Fork near Lower Lake	79	14N/6W-31	Dec. 1951	M	DWR	180, 390
Cache Slough below Lindsey Slough	110a	5N/3E-31	April 1952	[illegible]	USBR	181
Calaveras River at Jenny Lind	16a	3N/10E-27	April 1951	M	DWR	182, 366
Calaveras River near Stockton	16b	2N/6E-26	July 1958	M	DWR	183
Chowchilla River at Buchanan Damsite	114	8S/18E-22	Jan. 1958	M	DWR	184, 392
Clear Creek near Igo	12d	31N/6W-27	April 1958	M	DWR	185, 385
Clear Lake at Lakeport	41	14N/10W-24	April 1951	M	DWR	186, 366, 390
Colusa Trough near Colusa	87	16N/2W-34	July 1952	M	DWR	187, 390
Contra Costa Canal at 1st Pump Lift	109a	2N/2E-25	Jan. 1955	M	USBR	188
Cosumnes River at McConnell	94a	6N/6E-20	July 1958	M	DWR	189, 366, 391
Cosumnes River at Michigan Bar	94	8N/8E-36	July 1952	M	DWR	190, 391
Cottonwood Creek near Cottonwood	12b	29N/3W-7	April 1951	M	DWR	191, 385
Cottonwood Creek below North Fork Cottonwood Creek	11a	29N/6W-2	Oct. 1958	M	DWR	192, 385
Cottonwood Creek, South Fork above Cottonwood Creek	11b	29N/4W-17	Nov. 1958	M	DWR	193, 385
Cow Creek near Millville	88a	31N/3W-32	April 1958	M	DWR	194, 391
Delta Cross Channel near Walnut Grove	98	5N/4E-35	Sept. 1952	M	DWR	195, 366
Delta-Mendota Canal near Mendota	92	13S/15E-19	July 1952	M	DWR	196, 366, 391
Delta-Mendota Canal near Tracy	93	1S/4E-30	July 1952	M	DWR	197, 366, 391
		2S/3E-1R	July 1955	D	USGS	198, 199, 200, 201
Dutch Slough at Farrar Park Bridge	108b	2N/3E-22	May 1955	Feb-Oct	USBR	202
Elder Creek at Gerber	95a	25N/3W-2	Jan. 1959	M	DWR	203, 391
Elder Creek near Paskenta	13e	25N/6W-14	Oct. 1958	M	DWR	204, 366

a Location is referenced to Mt. Diablo Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, D-Composites of samples collected daily
d USGS-United States Geological Survey, Quality of Water Branch; USBR-United States Bureau of Reclamation; DWR-Department of Water Resources; USCE-United States Army Corps of Engineers

TABLE B-5

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5) (Continued)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
False River at Webb Pump	112a	3N/3E-36	May 1955	Feb - Oct	USBR	205
Feather River at Nicolaus	20	12N-3E-12	April 1951	M	DWR	206, 365, 387
			(March 1951-Sept. 30, 1962)	D	USGS	207, 208
Feather River near Oroville	19	19N/4E-2	April 1951	M	DWR	209, 365, 387
Feather River below Shanghai Bend	20a	14N/3E-11	July 1958	M	DWR	210, 387
Fresno River near Daulton	113	10S/19E-3	Jan. 1958	M	DWR	211, 392
Grant Line Canal at Tracy Road Bridge	103a	1S/5E-29	July 1958	M	DWR	212, 392
Indian Creek near Crescent Mills	17d	26N/9E-25	April 1951	M	DWR	213, 386
Indian Slough near Brentwood	107	1N/3E-23	Sept. 1952	M	DWR	214, 392
Italian Slough near Mouth	106	1S/4E-7	Sept. 1952	M	DWR	215, 392
Kaweah River below Terminous Dam	35	17S/28E-26	April 1951	M	(DWR-USCE)	216, 389
Kern River near Bakersfield	36	28S/28E-2	April 1951	M	DWR	217, 366, 390
Kern River below Isabella Dam	36a	26S/33E-30	Sept. 1955	M	USCE	218, 390
Kern River near Kernville	36b	23S/32E-14	Sept. 1955	M	USCE	219, 390
Kings River below North Fork	33c	12S/26E-21	Sept. 1955	M	USCE	220, 389
Kings River below People's Weir	34	17S/22E-1	April 1951	M	DWR	221, 366, 389
Kings River below Pine Flat Dam	33b	13S/24E-2	Sept. 1955	M	USCE	222, 389
Lindsey Slough near Rio Vista	110	5N/2E-25	Oct. 1952	M	DWR	223
Little Potato Slough at Terminous	99	3N/4E-13	Sept. 1952	M	DWR	224, 392
McCloud River above Shasta Lake	18	36N/3W-31	April 1951	M	DWR	225, 386
Merced River below Exchequer Dam	32a	4S/15E-14	April 1951	M	DWR	226, 389
Merced River near Stevinson	32	6S/9E-36	April 1951	M	DWR	227, 366, 389
Mill Creek near Mouth	88	25N/2W-9	July 1952	M	DWR	228
Mokelumne River below Cosumnes River	23b	5N/5E-29	June 1952 (except 1956)	I	USBR	229
Mokelumne River below Georgiana Slough	23c	3N/4E-7	May 1952 (except 1956)	I	USBR	230
Mokelumne River near Lancha Plana	23a	4N/10E-4	April 1951	M	DWR	231, 388
Mokelumne River at Woodbridge	23	4N/6E-34	April 1951	M	DWR	232, 365, 387
Old River at Clifton Court Ferry	104	1S/4E-20	Sept. 1952	M	DWR	233, 392
Old River at Holland Tract	108a	2N/4E-19	March 1952	M	USBR	234
Old River at Mandeville Island	112	2N/4E-6	Dec. 1954	M	DWR	235, 366
Old River at Orwood Bridge	108	1N/4E-17	Sept. 1952	M	DWR	236, 392
Old River near Tracy	103	2S/5E-6	Oct. 1952	M	DWR	237, 392
Paynes Creek near Red Bluff	88g	28N/2W-3	Oct. 1958	M	DWR	238, 391
Pit River near Bieber	17e	37N/7E-34	Oct. 1958	M	DWR	239, 386
Pit River near Canby	17a	41N/9E-10	April 1951	M	DWR	240, 365, 386
Pit River near Montgomery Creek	17	35N/1W-32	April 1951	M	DWR	241, 386
Pit River, South Fork near Likely	18a	39N/13E-11	Aug. 1958	M	DWR	242, 387
Putah Creek near Winters	81	8N/2W-27	Dec. 1951	M	DWR	243, 366, 390
Red Bank Creek near Red Bluff	88d	26N/5W-22	Jan. 1959	M	DWR	244, 391

a Location is referenced to Mt. Diablo Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, I-Irregular, D-Composites of samples collected daily
d USGS-United States Geological Survey, Quality of Water Branch; USBR-United States Bureau of Reclamation; DWR-Department of Water Resources; USCE-United States Army Corps of Engineers

TABLE B-5

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5) (Continued)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Rock Slough near Knightsen	109	2N/3E-33	Sept. 1952	M	DWR	245, 392
Sacramento River at Bend	12c	28N/3W-20	Aug. 1959 May 1955	M D	DWR USGS	246, 365, 385 247, 248, 249
Sacramento River at Boyers Bend	14c	13N/1E-22	July 1960	D	USGS	250, 251, 252
Sacramento River at Butte City	87a	19N/1W-32	Aug. 1959	M	DWR	253, 254, 255, 256, 390
Sacramento River at Colusa	13b	19N/1W-32	Oct. 1958	M	DWR	257, 365, 385
Sacramento River above Colusa Trough	14b	11N/2E-14	July 1960	M	DWR	258, 365, 386
Sacramento River at Delta	11	36N/5N-35	April 1951	M	DWR	259, 385
Sacramento River at Freeport	15b	7N/4E-14	June 1960 June 1960	M D	DWR USGS	260, 365, 386 261, 262, 263
Sacramento River near Hamilton City	13	22N/1W-20	April 1951	M	DWR	264, 365, 385
Sacramento River at Keswick	12	32N/5W-28	April 1951	M	DWR	265, 365, 385
Sacramento River at Rio Vista	16	4N/3E-30	April 1951	M	DWR	266, 365, 386
Sacramento River at Snodgrass Slough	97	6N/4E-22	June 1938	M	USBR	267
Sacramento River at Toland Landing	15a	3N/2E-21	July 1952	Feb-Oct	USBR	268
Sacramento Slough near Knights Landing	14a	11N/2E-20	June 1951	M	DWR	269, 386
Salt Slough at San Luis Ranch	24c	9S/11E-7	Nov. 1958	M	DWR	270, 388
San Joaquin River at Antioch	28	2N/2E-18	April 1951	M	DWR	271, 388
San Joaquin River at Brandt Bridge	101a	1S/6E-9	*	*	USBR	272
San Joaquin River at Crows Landing Bridge	26b	6S/9E-7	Jan. 1962 June 1952	M M	DWR USBR	273, 388 274
San Joaquin River near Dos Palos	25a	11S/13E-12	Sept. 1938	M	USBR	275
San Joaquin River at Fremont Ford Bridge	25c	7S/9E-24	July 1955	M	DWR	276, 365, 388
San Joaquin River at Friant Dam	24	11S/21E-7	April 1951	M	DWR	277, 388
San Joaquin River at Garwood Bridge	101	1N/6E-16	Sept. 1952	M	DWR	278
San Joaquin River near Grayson	26	4S/7E-24	April 1951	M	USGS	279, 388
San Joaquin River at Hills Ferry Bridge	25b	7S/9E-3	Oct. 1958	M	DWR	280, 388
San Joaquin River at Jersey Point	28b	2N/3E-6	July 1952	Feb-Oct	USBR	281
San Joaquin River at Maze Road Bridge	26a	3S/7E-29	April 1951	M	USGS	282, 388
San Joaquin River near Mendota	25	13S/15E-7	April 1951	M	DWR	283, 388
San Joaquin River above Merced River	30a	11S/13E-12	Sept. 1938	M	USBR	284
San Joaquin River at Mossdale Bridge	102	2S/6E-4	Sept. 1952	M	DWR	285, 392
San Joaquin River at Patterson Bridge (at Patterson Water Company)	27a	7S/9E-3	Jan. 1962 June 1938	M M	DWR USBR	286, 388 287
San Joaquin River above Salt Slough	111b	7S/10E-36	Sept. 1955	M	USBR	288
San Joaquin River at San Andreas Landing	112b	3N/3E-13	March 1952	M	USBR	289
San Joaquin River near Vernalis	27	3S/6E-13	April 1951 March 1951	M D	DWR USGS	290, 365, 388 291, 292, 293, 294
San Joaquin River at West Stanislaus ID Intake	27b	4S/7E-10	June 1938	M	USBR	295
San Joaquin River at Whitehouse	24b	13S/15E-25	Nov. 1953	I	USBR	296
Stanislaus River near Mouth	29	3S/7E-17	April 1951	M	DWR	297, 365, 389

a Location is referenced to Mt. Diablo Base and Meridian
b Beginning of record
  * August 1940 - June 1945, March 1948 - December 1955, and March 1957 to date
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, D-Composites of samples collected daily, I-Irregular
d DWR-Department of Water Resources; USGS-United States Geological Survey, Quality of Water Branch; USBR-United States Bureau of Reclamation; CCSF-City and County of San Francisco

TABLE B-5

SAMPLING STATION DATA AND INDEX

CENTRAL VALLEY REGION (NO. 5) (Continued)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Stanislaus River below Tulloch Dam	29a	1S/12E-1	July 1956	M	DWR	298, 389
Stockton Ship Channel on Rindge Island	100	2N/5E-28	Sept. 1952	M	DWR	299
Stony Creek at Black Butte Dam Site	13c	23N/4W-29	Jan. 1958	M	DWR	300, 385
Stony Creek near Hamilton City	13a	22N/2W-36	April 1951	M	DWR	301, 365, 385
Thomes Creek near Mouth	95b	25N/3W-35	Jan. 1959	M	DWR	302, 391
Thomes Creek near Paskenta	13d	23N/6W-4	Oct. 1958	M	DWR	303, 385
Tule River below Success Dam	91	22S/28E-3	July 1952	M	DWR - USCE	304, 366, 391
Tuolumne River below Don Pedro Dam	31a	3S/14E-3	April 1951	M	CCSF	305, 389
Tuolumne River at Hickman-Waterford Bridge	30	3S/11E-34	April 1951	M	CCSF	306, 389
Tuolumne River at Tuolumne City	31	4S/8E-7	April 1951	M	CCSF	307, 366, 389
Yuba River at Marysville	21	15N/4E-18	April 1951	M	DWR	308, 365, 387
Yuba River near Smartsville	21a	16N/6E-20	April 1951	M	DWR	309, 387

a Location is referenced to Mt. Diablo Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually, D-Composites of samples collected daily, I-Irregular
d DWR-Department of Water Resources; USGS-United States Geological Survey, Quality of Water Branch; USBR-United States Bureau of Reclamation; USCE-United States Army Corps of Engineers; CCSF-City and County of San Francisco

TABLE B-6

SAMPLING STATION DATA AND INDEX

LAHONTAN REGION (NO. 6)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Carson River, East Fork near Markleeville	115	10N/20E-27	Sept. 1958			311, 393
Carson River, West Fork at Woodfords	115a	11N/19E-34	Aug. 1958			312, 393
Lake Tahoe at Bijou	39	13N/18E-33	April 1951			313, 393
Lake Tahoe at Tahoe City	38	15N/17E-7	April 1951			314, 367, 393
Lake Tahoe at Tahoe Vista	37	16N/17E-14	April 1951			315, 393
Mojave River at the Forks	67a	3N/3W-18**	July 1957			316, 393
Mojave River near Victorville	67	6N/4W-29**	March 1951			317, 367, 393
Susan River at Susanville	17b	30N/12E-31	April 1951			318, 393
Truckee River near Farad	53	18N/17E-12	April 1951			319, 367, 393
Truckee River near Truckee	52	17N/16E-28	April 1951			320, 393
Walker River, East near Bridgeport	116a	6N/25E-34	Aug. 1958			321, 393
Walker River, West near Coleville	116	6N/23E-9	Aug. 1958			322, 393

a Except as indicated below, location is referenced to Mt. Diablo Base and Meridian
  * Humboldt Base and Meridian
  ** San Bernardino Base and Meridian
b Beginning of record
c All stations sampled monthly
d All stations sampled by Department of Water Resources

TABLE B-7

SAMPLING STATION DATA AND INDEX

COLORADO RIVER BASIN REGION (NO. 7)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Alamo River near Calipatria	60	11S/13E-22	March 1951	B	DWR	323, 395
Alamo River at International Boundary	59	17S/16E-18	Feb. 1951	B	DWR	324, 395
All-American Canal near Pilot Knob	56a	16S/21E-24	May 1953	S	DWR	325, 395
Colorado River near Blythe	56c	7S/23E-2	May 1953	S	DWR	326, 395
Colorado River at Colorado River Aqueduct Intake (Lake Havasu)	56d	3N/27E-28	Nov. 1953	M	MWD	327
Colorado River below Morelos Dam	56b	8S/24W-28*	May 1953	S	DWR	328, 395
Colorado River below Parker Dam	55	2N/27E-16	April 1951	S	DWR	329, 395
Colorado River near Topock, Arizona	54	7N/24E-8	April 1951	S	DWR	330, 395
Colorado River near Yuma, Arizona	56	16S/22E-36	April 1951	S	DWR	331, 369, 395
New River at International Boundary	57	17S/14E-14	April 1951	B	DWR	332, 395
New River near Westmoreland	58	12S/13E-30	Feb. 1951	B	DWR	333, 395
Salton Sea at Salton Sea State Park	68a	7S/10E-2	March 1955	B	DWR	334, 396
Whitewater River near Mecca	68b	7S/9E-31	July 1957	B	DWR	335, 396
Whitewater River near Whitewater	68	3S/3E-2	Feb. 1951	B	DWR	336, 395

a Except as indicated below, location is referenced to San Bernardino Base and Meridian
  * Gila and Salt River Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually
d DWR-Department of Water Resources; MWD-Metropolitan Water District of Southern California

TABLE B-8

SAMPLING STATION DATA AND INDEX

SANTA ANA REGION (NO. 8)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Chino Creek near Chino	[illegible]	[illegible]	April 1952	M	DWR	337, 397
Lake Elsinore near Elsinore	[illegible]	6S/5W-1	Feb. 1952	B	DWR	338
Santa Ana River near Arlington	51	2S/6W-25	Jan. 1951	M	DWR	339, 371, 397
Santa Ana River near Mentone	51b	1S/2W-4	April 1951	M	DWR	340, 397
Santa Ana River near Norco	51e	2S/7W-36	April 1951	M	DWR	341, 371, 397
Santa Ana River below Prado Dam	51a	3S/7W-29	April 1951	M	DWR	342, 371, 397
Warm Creek at Colton	50b	1S/4W-21	April 1951	M (TID)	CSB	343, 344, 345, 371, 397
Warm Creek at San Bernardino	50c	1S/4W-15	April 1951	M	CSB	346

a Location is referenced to San Bernardino Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, TID-Three times each day
d DWR-Department of Water Resources; CSB-City of San Bernardino

TABLE B-9

SAMPLING STATION DATA AND INDEX

SAN DIEGO REGION (NO. 9)

Station	Station Number	Location[a]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Analysis on page
Escondido Creek at Harmony Grove	63	12S/2W-30	March 1951			347, 373, 399
Forester Creek at Mission Gorge Road	65a	15S/1W-28	March 1954			348
San Diego River at Mission Gorge Road	65c	16S/2W-35	July 1962			349, 399
San Diego River at Old Mission Dam	65	15S/2W-25	April 1951			350, 373, 399
San Dieguito River near San Pasqual	64	13S/2W-1	April 1951			Dry in 1962 - 351
San Luis Rey River near Pala	62	9S/2W-36	March 1951			352
Santa Margarita River near Fallbrook	51c	9S/4W-12	Feb. 1951			353
Spring Valley Creek near La Pressa	65b	17S/1W-17	March 1958			354, 399
Tia Juana River at International Boundary	66	19S/2W-1	April 1951			Dry in 1962 - 355

a Location is referenced to San Bernardino Base and Meridian
b Beginning of record
c All stations sampled bimonthly
d All stations sampled by Department of Water Resources

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

ANTELOPE CREEK NEAR TENNANT (STA. 1e)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/[illegible] 1[illegible]	14	[illegible]	1[illegible]	7[illegible]	[illegible]	7.1 / 7.8	— / 0.48[c]		2.[illegible] / 0.11		0 / 0.00	[illegible] / 0.56		1.2 / 0.03			[illegible]				1[illegible]	24	0	1		USGS
[illegible]/7	NOT SAMPLED -- ROADS IMPASSABLE																									
[illegible]/7	NOT SAMPLED -- ROADS IMPASSABLE																									
4/4 1[illegible]	28	44	1[illegible].1	8[illegible]	54	7.2 / 7.4	— / 0.44[c]		2.6 / 0.11		0 / 0.00	31 / 0.51		0.8 / 0.02			0.0				2[illegible]	2[illegible]	[illegible]	1		
[illegible] 1[illegible]	8[illegible]	4[illegible]	10.7	8[illegible]	43	7.2 / 7.5	5.2 / 0.26	1.0 / 0.08	2.6 / 0.11	0.5 / 0.01	0 / 0.00	25 / 0.41	1.0 / 0.02	1.8 / 0.05	0.1 / 0.00	0.1 / 0.01	0.0	22	PO_4 [illegible]	48[f]	24	17	[illegible]	3		
[illegible] 1[illegible]	1[illegible]	4[illegible]	[illegible]	84	37	7.3 / 7.5	— / 0.28[c]		2.3 / 0.10		0 / 0.00	21 / 0.34		0.5 / 0.01			0.1				2[illegible]	14	0	2		
7/[illegible] 1435	52	5[illegible]	[illegible]	8[illegible]	47	7.3 / 7.5	— / 0.36[c]		3.0 / 0.13		0 / 0.00	26 / 0.43		0.8 / 0.02			0.0				27	18	0	2		
[illegible] 1[illegible]	1[illegible]	6[illegible]	[illegible]	83	[illegible]	7.4 / 7.6	— / 0.45[c]		3.2 / 0.14		0 / 0.00	35 / 0.59		1.5 / 0.04			0.0				24	22	0	1		
[illegible] 1[illegible]	11.7	65	[illegible]	73	61	7.4 / 7.5	6.2 / 0.31	1.5 / 0.12	3.9 / 0.17	0.8 / 0.02	0 / 0.00	36 / 0.59	0.6 / 0.01	0.8 / 0.02	1.5 / 0.02	0.0 / 0.00	0.0	20	PO_4 0.0[illegible]	62[f] 58[g]	27	22	0			
1[illegible]/3 1445	27	4[illegible]	[illegible]	81	62	7.3 / 7.6	— / 0.48[c]		4.2 / 0.18		0 / 0.00	38 / 0.62		1.0 / 0.03			0.0				27	24	0	2		
11/14 1445	34	40	11.1	85	53	7.2 / 7.6	— / 0.39[c]		2.6 / 0.11		0 / 0.00	31 / 0.51		2.2 / 0.06			0.0				22	20	0	1		
12/11 114[illegible]	35	3[illegible]	11.8	8[illegible]	55	7.3 / 7.4	— / 0.43[c]		2.9 / 0.13		0 / 0.00	32 / 0.52		0.2 / 0.01			0.0				23	22	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10
ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

BIG RIVER NEAR MOUTH (STA. 9C)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen (a = 0.99) ppm	Dissolved oxygen (a = 0.99) %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1100	21 (est.)	44	11.1	91	196	7.2	1.57[c]		11 / 0.48		0 / 0.00	98 / 1.61		8.0 / 0.23			0.2			129[e]	23	78	0	1		USGS
2/14 1650	1118 (est.)	51	10.0	90	99	7.0	0.72[c]		6.6 / 0.29		0 / 0.00	48 / 0.79		5.5 / 0.16			0.0			65[e]	29	36	0	140		
3/7 1230	341 (est.)	50	10.2	91	101	7.3	0.75[c]		6.3 / 0.27		0 / 0.00	48 / 0.79		5.5 / 0.16			0.1			66[e]	26	37	0	110		
4/11 1145	114 (est.)	55	9.1	86	173	7.7	1.33[c]		10 / 0.44		0 / 0.00	86 / 1.41		6.0 / 0.17			0.4			114[e]	25	66	0	1		
5/9 0941	82 (est.)	59	11.0	110	194	7.8	19 / 0.95	6.7 / 0.55	11 / 0.48	1.6 / 0.04	0 / 0.00	98 / 1.61	8.0 / 0.17	6.2 / 0.17	0.1 / 0.00	0.0 / 0.00	0.2	19	PO_4 0.05	120[f]	24	75	0	2		
6/6 0845	36 (est.)	58	11.3	111	210	7.4	1.72[c]		13 / 0.57		0 / 0.00	112 / 1.84		6.8 / 0.19			0.1			138[e]	25	86	0	2		
7/9 1820	14 (est.)	68	10.5	116	215	7.8	1.65[c]		13 / 0.57		0 / 0.00	114 / 1.87		8.0 / 0.23			0.4			141[e]	26	83	0	1		
8/8 1225	15 (est.)	58	7.5	74	209	7.4	1.60[c]		14 / 0.61		0 / 0.00	116 / 1.90		8.2 / 0.23			0.4			137[e]	28	80	0	2		
9/12 0950	8 (est.)	59	8.6	86	220	7.0	22 / 1.10	7.1 / 0.58	13 / 0.57	1.3 / 0.03	0 / 0.00	122 / 2.00	6.0 / 0.12	8.2 / 0.23	0.6 / 0.01	0.0 / 0.00	0.5	14	PO_4 0.10	135[g]	25	84	0	2		
10/9 1315	25 (est.)	60	9.3	94	216	7.3	1.70[c]		13 / 0.57		0 / 0.00	122 / 2.00		9.6 / 0.27			0.3			142[e]	25	85	0	2		
11/14 1215	20 (est.)	51	10.5	95	222	7.4	1.76[c]		12 / 0.52		0 / 0.00	125 / 2.05		7.2 / 0.20			0.4			146[e]	23	88	0	4		
12/11 1210	380 (est.)	49	10.6	93	165	7.3	1.31[c]		9.8 / 0.43		0 / 0.00	89 / 1.46		1.2 / 0.03			0.2			108[e]	25	65	0	35		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.656

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

BUTTE CREEK NEAR MACDOEL (STA. 1d)

Date and time sampled P.S.T 1.[illegible]	Discharge in cfs Est. by Sampler	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/[illegible] 1:1[illegible]	[illegible]	[illegible]	11.7	81	70	7.1/7.7	[illegible]/[illegible]		2.3/0.14		0/0.00	[illegible]/0.06		1.2/0.03			0.0/[illegible]				1[illegible]	3[illegible]	[illegible]	2		USGS
2/7	NOT SAMPLED -- ROADS IMPASSABLE																									
[illegible]	1[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.1/7.7	[illegible]/[illegible]		3.7/0.16		0/0.0	[illegible]/[illegible]		[illegible]/0.0			0.[illegible]				2[illegible]	[illegible]	[illegible]	5		
[illegible]	[illegible]	[illegible]	[illegible]	8[illegible]	[illegible]	7.2/7.4	[illegible]/[illegible]		3.3/0.14		0/0.00	3[illegible]/[illegible]		[illegible]/0.03			0.0				21	2[illegible]	[illegible]	10		
[illegible] 1:[illegible] 1145	[illegible]	[illegible]	[illegible]	5[illegible]	61	7.2/7.4	[illegible]/0.34	1.5/0.12	3.7/0.16	1.0/0.03	0/0.00	3[illegible]/0.52	3.0/0.0[illegible]	1.0/0.03	[illegible]/0.00	0.[illegible]/0.01	[illegible]	2[illegible]	PO_4 0.00	[illegible]	2[illegible]	2[illegible]	[illegible]	[illegible]		
[illegible] 1:1[illegible] 1355	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.2/7.6	[illegible]/0.45		3.2/0.14		0/0.00	2[illegible]/0.37		0.8/0.02			0.1				23	[illegible]		3		
[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	71	[illegible]/7.7	[illegible]/0.5[illegible]		4.2/0.18		[illegible]/0.00	[illegible]/0.[illegible]		[illegible]/0.01			[illegible]				2[illegible]	2[illegible]		2		
[illegible] 1:[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	1[illegible]1	[illegible]/7.[illegible]	[illegible]/0.7[illegible]		6.1/0.27		[illegible]/0.00	[illegible]/1.0[illegible]		[illegible]/0.03			[illegible]				2[illegible]	[illegible]		3		
[illegible] 1:[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	77	7.[illegible]/8.1	[illegible]/0.3[illegible]	[illegible]/0.1[illegible]	[illegible]/0.24	0.7/0.02	0/0.00	[illegible]/0.77	[illegible]/0.01	0.2/0.01	0.5/0.02	[illegible]/[illegible]	[illegible]	1[illegible]	PO_4 0.10	[illegible]	[illegible]	2[illegible]		[illegible]		
1[illegible] 1[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/7.[illegible]	[illegible]/0.4[illegible]		4.7/0.20		0/0.00	[illegible]/0.[illegible]		1.[illegible]/0.[illegible]			[illegible]				[illegible]	[illegible]		[illegible]		
11/14 1[illegible]	1	[illegible]	11.4	[illegible]	[illegible]	7.1/7.5	[illegible]/0.45		3.4/0.15		0/0.00	3[illegible]/0.[illegible]		[illegible]/0.1			[illegible]				[illegible]	[illegible]		[illegible]		
12/[illegible] 2[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	7.2/7.3	[illegible]/0.5[illegible]		4.0/0.17		0/0.00	[illegible]/0.00		0.[illegible]/0.00			0.0				[illegible]	[illegible]		[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER NEAR DOS RIOS (STA. 5d)

Date and time sampled P.S.T. 1968	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1/8 1315	45	44	11.4	93	201	7.7/8.1	1.80[c]		5.9/0.26		0/0.00	102/1.67		5.2/0.15			0.3				13	6	6	1		UCGS
2/5 1050	75	44	11.3	92	197	7.5/8.2	1.70[c]		7.1/0.31		0/0.00	98/1.61		5.7/0.16			0.0				15	85	5	4		
3/5 1145	3,730	49	11.7	97	100	7.3/7.7	0.90[c]		3.5/0.15		0/0.00	50/0.82		2.2/0.07			0.1				14	4[illegible]	4	40		
4/2 1140	2,5[illegible]	54	10.5	97	128	7.5/7.9	1.20[c]		3.4/0.17		0/0.00	66/1.08		1.2/0.05			0.2				13	59	1	15		
5/10 0810	134	59	11.9	117	201	8.2/8.1	23/1.15	8.4/0.69	7.0/0.30	1.1/0.03	0/0.00	106/1.74	14/0.29	3.2/0.09	0.0/0.00	0.1/0.01	0.2	12	PO_4 0.05	121[f]	14	42	5	4		
6/6 1340	38	74	10.2	119	223	8.4/8.4	2.04[c]		7.8/0.34		2/0.17	110/1.80		4.0/0.11			0.2		Tot. Alk. 120		14	102	4	2		
7/10 1138	8.8	77	10.6	126	247	8.4/8.2	2.19[c]		9.7/0.42		0/0.00	127/2.08		5.0/0.10			0.3				16	109	5	1		
8/6 1715	5.7	82	8.3	85	241	8.2/8.5	2.00[c]		12/0.52		1/0.03	114/1.95		1.7/0.14			0.4		Tot. Alk. 121		21	100	1	5		
9/12 1550	4.2	73	9.8	113	228	7.5/8.3	22/1.10	8.8/0.72	12/0.52	1.2/0.03	0/0.00	96/1.57	16/0.33	7.0/0.2	0.1/0.00	0.1/0.01	0.5	13	PO_4 0.10 Tot. Alk. 106	135[f] 145[f]	22	41	2	2		
10/10 0845		61	8.8	89	227	7.8/7.7	1.92[c]		9.2/0.40		0/0.00	107/1.75		7.1/0.20			0.4				17	46	8	80		
11/14 1630	100	52	10.6	90	239	8.0/8.1	2.12[c]		8.5/0.37		0/0.00	132/2.16		5.1/0.14			0.1				15	10[illegible]	0	1		
12/11 1630	455	45	10.9	94	165	7.4/8.1	1.45[c]		5.8/0.25		0/0.00	91/1.49		2.0/0.06			0.2				15	73	0	20		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER NEAR McCANN (STA. 5)

Date and time sampled P.S.T	Discharge in cfs Not Rated	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							ppm / equiv. per million																			
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.0	[illegible] / 1.74		[illegible] / [illegible]		0 / 0.00	[illegible] / 1.91		[illegible] / 0.12			0.1				10	87	12	1	Maximum 620.	USGS
[illegible]		[illegible]	11.[illegible]	[illegible]	17[illegible]	[illegible] / 7.7	[illegible] / [illegible]		[illegible] / 0.27		0 / 0.00	[illegible] / 1.46		[illegible] / 0.11			0.1				12	81	7	40	Minimum 0.23	
[illegible]		[illegible]	[illegible]	[illegible]	1[illegible]	7.5 / 7.9	[illegible] / 1.14		[illegible] / 0.17		0 / 0.00	[illegible] / 1.02		[illegible] / [illegible]			[illegible]				13	97	6	[illegible]	Median 0.2	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	7.7 / 7.7	[illegible] / 1.16		[illegible] / 0.14		0 / 0.00	[illegible] / 1.15		[illegible] / 0.00			[illegible]				11	93	5	7[illegible]		
[illegible]		[illegible]	[illegible]	[illegible]	14[illegible]	[illegible] / [illegible]	1[illegible] / [illegible]	[illegible] / 0.33	[illegible] / [illegible]	[illegible] / [illegible]	0 / 0.00	[illegible] / 1.63	11 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.02	[illegible]	[illegible]	PO_4 [illegible]	88[f]	13	94	[illegible]	3.5		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	8.2 / 8.2	[illegible] / [illegible]		[illegible] / 0.19		0 / 0.00	[illegible] / 1.91		[illegible] / 0.07			0.1				11	79	4	2		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.4	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / 0.10	[illegible] / 1.[illegible]		[illegible] / 0.12			[illegible]		Tot. Alk. 123		12	107	6	0.8		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.1	[illegible] / [illegible]		[illegible] / 0.30		0 / 0.00	[illegible] / 2.15		[illegible] / 0.17			[illegible]				12	113	8	1		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	8.0 / 8.0	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.34	1.[illegible] / 0.04	0 / 0.00	1.[illegible] / 2.23	[illegible] / 0.44	[illegible] / [illegible]	[illegible] / 0.00	[illegible] / 0.00	[illegible]	[illegible]	PO_4 [illegible]	158[f] 158[g]	12	122	16	4		
[illegible] 1210		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.33		[illegible] / 0.00	1.[illegible] / 2.11		[illegible] / 0.14			[illegible]				12	1[illegible]	14	3		
11/6 [illegible]		[illegible]	[illegible]	[illegible]	[illegible]	7.8 / 8.3	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / 0.13	1.[illegible] / 1.97		[illegible] / 0.14			[illegible]		Tot. Alk. [illegible]		11	111	[illegible]	1		
[illegible] 1310		[illegible]	11.[illegible]	[illegible]	11[illegible]	7.5 / 7.6	[illegible] / 1.12		[illegible] / 0.17		0 / 0.00	[illegible] / 1.97		1.[illegible] / 0.0[illegible]			0.1				13	9[illegible]	3	[illegible]		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER AT SCOTIA (STA. 6)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.4 / 7.9	[illegible] / 1.[illegible]		6.3 / 0.27		0 / 0.00	102 / 1.67		6.2 / 0.17			0.1				13	90	6	1	Maximum 620.	USGS
[illegible]	[illegible]	[illegible]	11.4	1[illegible]	17[illegible]	7.7 / 7.1	[illegible] / 1.[illegible]		6.0 / 0.26		0 / 0.00	[illegible] / 1.91		4.7 / 0.13			0.1				14	80	5	4	Minimum 0.00	
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.[illegible] / 7.5	[illegible] / [illegible]		4.6 / 0.20		0 / 0.00	51 / 0.84		3.2 / 0.09			0.1				17	48	6	55	Median 0.[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	7.8 / 7.[illegible]	[illegible] / 1.25		4.[illegible] / 0.17		0 / 0.00	74 / 1.21		2.5 / 0.07			0.2				12	63	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17[illegible]	7.[illegible] / 8.1	11 / 1.[illegible]	[illegible] / [illegible]	5.1 / 0.22	1.6 / 0.03	0 / 0.00	8[illegible] / 1.41	11 / 0.23	3.7 / 0.10	[illegible] / 0.00	[illegible] / 0.00	0.0	15	PO_4 0.00 As 0.00 ABS 0.0	105[f]	12	77	[illegible]	13		
[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.1 / 7.[illegible]	[illegible] / 1.[illegible]		5.7 / 0.25		0 / 0.[illegible]	10[illegible] / 1.74		3.5 / 0.10			0.1				12	[illegible]	[illegible]	[illegible]		
7/[illegible] 1[illegible]25	[illegible]	7[illegible]	11.[illegible]	13[illegible]	2[illegible]	7.4 / 8.4	[illegible] / 2.38		8.4 / 0.37		4 / 0.13	13[illegible] / 2.20		6.4 / 0.18			0.1		T t. Alk. 14[illegible]		13	119	3	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2[illegible]	7.1 / 8.2	[illegible] / 2.04		2.7 / 0.42		0 / 0.00	1[illegible]0 / 2.5[illegible]		9.6 / 0.27			0.1				14	132	2	1		
[illegible]	[illegible]	[illegible]	11.7	123	[illegible]	[illegible] / 8.4	37 / 1.8[illegible]	11 / 0.[illegible]	[illegible] / 0.4[illegible]	1.1 / 0.3	4 / 0.13	168 / 2.5[illegible]	1 / 0.2[illegible]	7.[illegible] / 0.2[illegible]	0.3 / 0.[illegible]	0.[illegible] / 0.00	0.0	1[illegible]	PO_4 0.20 As 0.00 ABS 0.0 Tot.Alk.166	171[f] 175[g]	13	1[illegible]7	1	2		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		10 / 0.44		6 / 0.[illegible]	10[illegible] / 1.7[illegible]		[illegible] / 0.15			[illegible]				18	10[illegible]	11	17[illegible]		
11/[illegible] [illegible]	1,[illegible]	[illegible]	7.5	71	[illegible]	7.7 / 7.[illegible]	[illegible] / 2.2[illegible]		7.[illegible] / 0.3[illegible]		0 / 0.00	12[illegible] / 1.[illegible]		4.8 / 0.14			0.2				13	1[illegible]	[illegible]	1		
[illegible]	[illegible]	[illegible]	1[illegible]	1[illegible]	12[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 1.[illegible]		5.7 / 0.25		0 / 0.0[illegible]	[illegible]1 / 1.[illegible]0		1.[illegible] / 0.[illegible]5			0.1				1[illegible]	5[illegible]	3	30[illegible]		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER, MIDDLE FORK AT DOS RIOS (STA. 5c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/8 1400	540	42	11.5	91	153	7.5 / 7.4	1.43[c]		3.3 / 0.14		0 / 0.00	75 / 1.23		3.2 / 0.09			0.2				9	71	9	1		USGS
2/5 1115	[illegible]	43	11.5	93	140	7.5 / 8.0	1.34[c]		4.1 / 0.18		0 / 0.00	74 / 1.21		[illegible] / 0.07			0.1				12	67	6	4		
[illegible] 1115	[illegible]	44	[illegible]	[illegible]	140	7.5 / 7.9	[illegible]		3.8 / 0.17		0 / 0.00	73 / 1.20		1.5 / 0.04			0.0				11	68	8	120		
[illegible] 1115	[illegible]	42	11.5	[illegible]	108	7.5 / 7.9	[illegible]		2.4 / 0.10		0 / 0.00	58 / 0.95		1.4 / 0.04			0.0				9	52	4	60		
5/10 0715	1.1	53	11.5	1[illegible]	114	7.4 / 7.8	14 / 0.7	[illegible] / [illegible]	3.0 / 0.13	0.[illegible] / 0.02	[illegible] / 0.00	59 / 0.97	0.0 / 0.12	1.2 / 0.3	0.2 / 0.00	0.1 / 0.01	0.0	8.[illegible]	PO_4 0.10 As 0.01 ABS 0.0	67[f]	11	51	[illegible]	10		
6/6 1415	[illegible]	[illegible]	[illegible]	11.5	141	8.0 / 8.0	[illegible] / [illegible]		3.[illegible] / [illegible]		0 / 0.0	73 / 1.20		[illegible] / [illegible]			0.0				11	[illegible]	5	2		
7/10 1210	[illegible]	[illegible]	[illegible]	11.7	[illegible]	8.2 / 8.2	[illegible] / [illegible]		7.1 / [illegible]		[illegible] / 0.00	11[illegible] / 1.88		7.0 / [illegible]			0.[illegible]				13	107	13	1		
8/8 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.4 / 8.5	[illegible] / [illegible]		12 / [illegible]		[illegible] / [illegible]	110 / 1.80		14 / 0.3[illegible]			0.1		Tot. Alk. 1[illegible]		18	116	16	5		
9/12 1640	[illegible]	[illegible]	1.1	11[illegible]	[illegible]	[illegible] / 8.4	[illegible] / 1.[illegible]	9.1 / [illegible]	13 / 0.57	1.1 / 0.03	[illegible] / 0.17	111 / 1.8[illegible]	[illegible] / 0.[illegible]2	18 / 0.51	0.[illegible] / 0.00	0.1 / 0.01	0.[illegible]	[illegible].0	PO_4 0.00 As 0.00 ABS 0.0 Tot.Alk.1[illegible]	17[illegible][f] 1[illegible]	18	125	[illegible]	1[illegible]		
10/10 0930		[illegible]	[illegible]	[illegible]	[illegible]	7.9 / 7.6	[illegible]		11 / 0.48		[illegible]	141 / 1.98		33 / 0.93			0.1				1[illegible]	1[illegible]	23	4[illegible]		
11/14 1700	[illegible]	[illegible]	[illegible]	[illegible]	17[illegible]	7.6 / 8.1	[illegible]		[illegible] / [illegible]		[illegible]	92 / 1.5[illegible]		4.[illegible] / 0.14			[illegible]				1[illegible]	78	3	1		
12/11 1650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]		[illegible] / [illegible]		[illegible]	[illegible] / 1.41		[illegible] / 0.77			0.0				10	73	[illegible]	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER, SOUTH FORK NEAR MIRANDA (STA. 7)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/5 1[illegible]	~12	48	11.6	100	162	7.3 / 8.0	— / 1.39[c]		5.9 / 0.25		0 / 0.00	81 / 1.33		5.3 / 0.15			0.0				16	70	4	1	Maximum 230.	USGS
2/5 1[illegible]5	88[illegible]	4[illegible]	11.3	98	152	7.5 / 8.0	— / 1.25[c]		6.8 / 0.30		0 / 0.00	79 / 1.29		5.7 / 0.16			0.1				19	62	0	4	Minimum 0.23	
3/5 1445	6,450	47	11.0	93	[illegible]	7.3 / 7.6	— / 0.82[c]		4.4 / 0.19		0 / 0.00	46 / 0.75		3.5 / 0.10			0.0				19	41	3	40	Median 6.2	
4/2 1415	1,110	56	10.3	98	135	7.5 / 7.8	— / 1.06[c]		5.4 / 0.23		0 / 0.00	71 / 1.16		4.0 / 0.11			0.0				18	53	0	10		
5/[illegible] 12[illegible]	596	62	9.8	100	169	7.7 / 8.1	18 / 0.90	6.6 / 0.54	7.4 / 0.32	0.8 / 0.02	0 / 0.00	88 / 1.44	9.0 / 0.19	6.5 / 0.18	0.0 / 0.00	0.1 / 0.01	0.0	14	PO_4 0.05	105[f]	18	72	0	7		
6/5 1350	-5	67	10.4	112	190	8.1 / 8.2	— / 1.76[c]		7.6 / 0.33		0 / 0.00	103 / 1.69		4.8 / 0.14			0.0				16	88	4	1		
7/10 1435	110	75	10.3	120	217	8.2 / 8.2	— / 1.92[c]		8.9 / 0.39		0 / 0.00	120 / 1.97		8.4 / 0.24			0.1				17	96	0	1		
8/7 1455	76	63	8.3	91	216	8.2 / 8.2	— / 1.92[c]		9.9 / 0.43		0 / 0.00	123 / 2.02		6.0 / 0.17			0.0				18	96	0	1		
9/6 1[illegible]		67	8.8	95	238	8.1 / 8.4	26 / 1.30	9.0 / 0.74	11 / 0.48	1.0 / 0.03	4 / 0.13	126 / 2.07	0.2 / 0.19	8.6 / 0.24	0.1 / 0.00	0.1 / 0.01	0.0	8.4	PO_4 0.00 Tot. Alk. 134	139[f] 140[g]	19	102	0	5		
10/[illegible] 1415	500 (est.)	63	9.3	96	228	7.6 / 7.9	— / 2.03[c]		10 / 0.44		0 / 0.00	125 / 2.05		9.2 / 0.26			0.0				18	102	0	35		
11/8 1320	340	58	9.6	93	183	7.7 / 7.8	— / 1.54[c]		7.4 / 0.32		0 / 0.00	98 / 1.61		4.5 / 0.13			0.2				17	77	0	1		
12/4 1120	8,210	53	11.1	102	101	7.5 / 7.8	— / 0.80[c]		5.4 / 0.23		0 / 0.00	53 / 0.87		3.4 / 0.10			0.0				22	40	0	180		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

GUALALA RIVER. SOUTH FORK NEAR ANNAPOLIS (STA. 9A)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 0.98 Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1652	50	48	10.7	92	228	7.3	—/1.98[c]		10/0.44		0/0.00	116/1.90		8.0/0.23			0.0			137[e]	18	99	4	2	Median 23	USGS
2/14 1100	4000	51	9.8	88	109	7.1	—/0.86[c]		5.8/0.25		0/0.00	52/0.85		5.0/0.14			0.0			65[e]	23	43	0	1000	Max. 7000.	
3/7 0745	2800	49	10.5	91	121	7.4	—/0.99[c]		5.9/0.26		0/0.00	61/1.00		5.0/0.14			0.0			73[e]	21	49	0	85	Min. 0.62	
4/11 0830	110	54	8.8	82	220	7.5	—/1.86[c]		11/0.48		0/0.00	116/1.90		7.0/0.20			0.0			132[e]	21	93	0	1		
5/8 1550	72	63	10.8	111	245	8.0	24/1.20	10/0.86	12/0.52	1.6/0.04	0/0.00	129/2.11	13/0.27	6.8/0.19	0.0/0.00	0.0/0.00	0.1	18	PO_4 0.10	150[f]	20	103	0	6		
6/5 1428	23	67	8.7	94	246	7.2	—/2.14[c]		11/0.48		0/0.00	132/2.16		6.0/0.17			0.0			148[e]	18	107	0	3		
7/9 1358	20 (est.)	70	10.8	120	268	7.6	—/2.22[c]		13/0.57		0/0.00	138/2.26		9.3/0.26			0.1			160[e]	20	111	0	1		
8/7 1655	10 (est.)	63	9.0	93	273	7.6	—/2.25[c]		14/0.61		0/0.00	152/2.49		9.6/0.27			0.1			164[e]	21	112	0	9		
9/11 1620	5.2	70	13.4	149	272	7.3	26/1.30	12/1.00	13/0.57	1.1/0.03	0/0.00	152/2.49	11/0.23	9.0/0.25	0.7/0.01	0.0/0.00	0.1	15	PO_4 1.3	172[g]	20	115	0	2		
10/9 0915	9.1	62	6.1	62	280	7.2	—/2.37[c]		14/0.61		0/0.00	159/2.61		12/0.34			0.0			168[e]	20	118	0	2		
11/13 1440	35	56	10.1	96	270	7.6	—/2.28[c]		12/0.52		0/0.00	152/2.49		7.2/0.20			0.2			162[e]	19	114	0	2		
12/10 1500	52	49	10.8	94	226	7.4	—/1.93[c]		10/0.44		0/0.00	124/2.03		6.6/0.19			0.0			136[e]	19	96	0	4		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.600

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE (STA. 1c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	pH b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
								Mineral constituents in parts per million / equivalents per million																			
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		USGS
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]		[illegible]	11.4	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		17 / 0.74		[illegible] / [illegible]	119 / 1.95		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]		[illegible]	[illegible]	[illegible]	201	[illegible] / [illegible]		[illegible] / [illegible]		20 / 0.87		[illegible] / [illegible]	118 / 1.93		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]		[illegible]	11.[illegible]	100	277	8.1 / 8.0		14 / 0.45	11 / 0.90	[illegible] / 1.00	2.4 / 0.07	[illegible] / 0.00	114 / 1.87	[illegible] / [illegible]	[illegible] / 0.24	[illegible] / 0.01	[illegible] / 0.01	[illegible]	2[illegible]	PO_4 0.20	180[f]	[illegible]	[illegible]		7		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		14 / 0.85		[illegible] / 0.17	99 / 1.62		7.[illegible] / [illegible]			[illegible]		Tot. Alk. 109		[illegible]	[illegible]		[illegible]		
[illegible]		72	[illegible]	110	255	8.2 / 8.1		[illegible] / [illegible]		21 / 0.91		[illegible] / 0.00	112 / 1.84		7.4 / 0.21			0.2				[illegible]	84		1		
[illegible]		72	[illegible]	[illegible]	[illegible]	[illegible] / 8.4		[illegible] / [illegible]		18 / 0.78		[illegible] / 0.15	107 / 1.75		[illegible] / [illegible]	[illegible] / [illegible]		[illegible]		Tot. Alk. 115 PO_4 0.50		34	[illegible]	[illegible]	3		
[illegible]		[illegible]	[illegible]	111	[illegible]	[illegible] / 8.2		[illegible] / [illegible]	4.6 / 0.78	20 / 0.87	2.8 / 0.07	[illegible] / [illegible]	116 / 1.9[illegible]	18 / 0.51	5.7 / 0.1[illegible]	1.[illegible] / [illegible]	0.1 / [illegible]	0.1	<	PO_4 0.50	14[illegible][f] 141[illegible]	[illegible]	78		3		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.9		[illegible] / [illegible]		18 / 0.78		[illegible] / [illegible]	12[illegible] / 1.[illegible]		7.[illegible] / 0.21	[illegible] / [illegible]		0.1		PO_4 0.35		[illegible]	7[illegible]		[illegible]		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.		[illegible] / [illegible]		21 / 0.91		[illegible] / [illegible]	1[illegible] / 2.05		[illegible] / 0.14	[illegible] / [illegible]		[illegible]		PO_4 0.25		[illegible]	[illegible]		1[illegible]		
[illegible]		[illegible]	11.7	[illegible]	[illegible]	7.7 / 8.		[illegible] / 1.72[illegible]		22 / 0.[illegible]		[illegible] / 0.0	122 / 2.00		7.[illegible] / [illegible]	1.[illegible] / [illegible]		0.2		PO_4 0.25		[illegible]	[illegible]		[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER BELOW IRON GATE DAM (STA. 1[illegible])

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible] 0930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Maximum 2,400.	U.C.
2/7 1110	1,680	38	10.0	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		4.5 / 0.1[illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Minimum 0.06	
3/7 [illegible]	1,630	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		3.5 / .1[illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Median 6.2	
[illegible] 0940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		4.9 / 0.14			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
5/16 0940	1,730	58	8.9	86	263	7.7 / 7.6	15 / 0.75	10 / 0.85	22 / 0.96	3.4 / 0.09	0 / 0.00	84 / 1.38	51 / 1.06	6.5 / 0.18	1.1 / 0.02	0.3 / 0.02	0.1	24	PO_4 0.25 As 0.00 ABS 0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
6/13 0915	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		6.2 / 0.17			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		4.8 / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		3.7 / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		PO_4 0.45		[illegible]	[illegible]	[illegible]	[illegible]		
9/13 0830	1,250	67	7.5	81	198	7.7 / [illegible]	14 / [illegible]	7.1 / [illegible]	17 / [illegible]	2.6 / [illegible]	0 / [illegible]	94 / [illegible]	17 / [illegible]	5.6 / [illegible]	1.5 / [illegible]	0.0 / [illegible]	0.0	17	PO_4 0.10 A[illegible] [illegible] ABS [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 0945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		5.0 / 0.14	[illegible] / [illegible]		[illegible] / [illegible]		PO_4 [illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
11/1[illegible] 0945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.15	[illegible] / [illegible]		[illegible] / [illegible]		PO_4 [illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
12/1[illegible] 1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		0 / [illegible]	[illegible] / [illegible]		6[illegible] / 0.17	[illegible] / [illegible]		[illegible] / [illegible]		PO_4 [illegible]		[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER NEAR KLAMATH (STA. 3)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
[illegible] 1[illegible]	8,350	44	11.0	89	161	7.3 / 8.1	— / 1.32[c]		6.6 / 0.29		0 / 0.00	80 / 1.31		3.7 / 0.10			0.1				18	66	0	3	Maximum 7,000.+	USGS
[illegible] 1425	8,3[illegible]	49	12.1	105	156	7.5 / 7.7	— / 1.32[c]		6.7 / 0.29		0 / 0.00	82 / 1.34		2.0 / 0.06			0.2				18	66	0	4	Minimum 0.045-	
[illegible] 1335	25,700	46	11.6	97	127	7.3 / 8.0	— / 1.12[c]		3.6 / 0.16		0 / 0.00	66 / 1.08		2.2 / 0.06			0.0				12	56	2	30	Median 6.2	
[illegible] 1555	25,1[illegible]	52	11.[illegible]	100	125	7.5 / 7.8	— / 1.06[c]		3.7 / 0.16		0 / 0.00	66 / 1.08		1.7 / 0.05			0.0				13	54	0	25		
[illegible] 0750	15,700	54	10.[illegible]	98	114	7.3 / 7.9	11 / 0.55	5.0 / 0.41	4.1 / 0.18	0.7 / 0.02	0 / 0.00	58 / 0.95	9.2 / 0.19	1.6 / 0.05	0.0 / 0.00	0.1 / 0.01	0.0	14	PO_4 1.6; As 0.00; ABS 0.0	75[f]	16	48	0	13		
[illegible] 1[illegible]	8,070	61	9.7	98	135	7.4 / 8.0	— / 1.14[c]		5.4 / 0.23		0 / 0.00	70 / 1.15		2.2 / 0.06			0.0				17	57	0	2		
7/21 1220	3,930	71	9.3	104	167	7.3 / 8.1	— / 1.40[c]		6.8 / 0.30		0 / 0.00	86 / 1.41		4.0 / 0.11			0.0				18	70	0	1		
8/[illegible] 1[illegible]	5,250	67	8.2	88	163	7.5 / 7.6	— / 1.33[c]		7.9 / 0.34		0 / 0.00	82 / 1.34		5.4 / 0.15			0.1				20	67	0	15		
9/7 1140	2,9[illegible]	[illegible]	8.7	96	194	8.0 / 7.7	19 / 0.95	7.3 / 0.60	10 / 0.44	1.5 / 0.04	0 / 0.00	102 / 1.67	13 / 0.27	5.1 / 0.14	0.3 / 0.00	0.0 / 0.00	0.0	15	PO_4 0.05; As 0.00; ABS 0.0	121[f] 121[g]	22	78	0	10		
10/11 1140	27,300	55	10.[illegible]	100	99	7.4 / 7.5	— / 0.88[c]		3.3 / 0.14		0 / 0.00	52 / 0.85		2.0 / 0.06			0.0				14	44	1	45		
11/[illegible] 1[illegible]	[illegible],78	53	10.[illegible]	100	192	7.5 / 8.0	— / 1.48[c]		11 / 0.48		0 / 0.00	102 / 1.67		5.1 / 0.14			0.0				24	74	0	5		
12/5 1300	5[illegible],4[illegible]	5[illegible]	11.7	104	123	7.5 / 7.7	— / 1.06[c]		5.4 / 0.23		0 / 0.00	68 / 1.11		2.8 / 0.08			0.1				18	54	0	70		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER NEAR SEIAD VALLEY (STA. 2b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/[illegible] 1145	2,7[illegible]	40	12.1	[illegible]3	242	7.5/7.8	—/1.70[c]		19/0.83		0/0.00	113/1.85		6.5/0.18			0.1				33	85	0	10		USGS
[illegible]	4,4[illegible]	42	11.5	[illegible]1	1[illegible]5	7.5/7.8	—/1.52[c]		12/0.52		0/0.00	102/1.67		6.0/0.17			0.1				25	76	0	60		
3/[illegible] [illegible]	3,[illegible]	44	11.7	[illegible]5	263	7.7/8.0	—/1.82[c]		12/0.52		0/0.00	118/1.93		4.8/0.14			0.1				22	91	0	20		
4/5 [illegible]	5,05[illegible]	52	10.2	[illegible]3	229	7.7/7.8	—/1.84[c]		14/0.61		0/0.00	106/1.74		4.2/0.12			0.0				25	92	5	20		
[illegible]	[illegible]	57	10.7	103	230	8.3/8.1	16/0.80	11/0.90	15/0.65	2.0/0.05	0/0.00	102/1.67	25/0.52	8.5/0.24	0.4/0.01	0.2/0.01	0.0	22	PO_4 0.05 As 0.01 ABS 0.0	150[f]	27	85	1	5		
[illegible]	2,100	63	10.1	104	200	8.1/8.1	—/1.54[c]		11/0.48		0/0.00	96/1.57		5.5/0.16			0.1				24	77	0	4		
7/[illegible] 1255	1,180	72	9.9	112	240	8.2/8.0	—/1.77[c]		16/0.70		0/0.00	115/1.88		6.5/0.18			0.1				27	89	0	0.6		
8/14 121	1,240	73	8.3	95	229	8.2/8.3	—/1.64[c]		17/0.74		1/0.03	114/1.87		7.0/0.20	0.0/0.00		0.1		Tot. Alk. 116 PO_4 0.40		31	82	0	1		
[illegible] 1135	1,430	67	10.1	1[illegible]	225	8.3/7.9	17/0.85	8.6/0.71	17/0.74	2.6/0.07	0/0.00	117/1.92	15/0.31	7.0/0.20	1.2/0.02	0.1/0.01	0.0	19	PO_4 0.00 As 0.01 ABS 0.0	146[f] 145[g]	31	78	0	5		
10/[illegible] 1230	1,970	62	10.6	108	228	8.2/8.0	—/1.62[c]		17/0.74		0/0.00	120/1.97		7.0/0.20	2.1/0.03		0.1		PO_4 0.25		31	81	0	4		
11/1[illegible] 1210	4,550	49	10.7	93	219	7.4/8.1	—/1.50[c]		16/0.70		0/0.00	114/1.87		6.4/0.18	2.1/0.03		0.0		PO_4 0.25		32	75	0	10		
12/1[illegible] 1[illegible]	5,640	43	12.0	97	237	7.5/7.7	—/1.70[c]		17/0.74		0/0.00	115/1.88		6.5/0.18	1.4/0.02		0.2		PO_4 0.20		30	85	0	15		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER AT SOMESBAR (STA. 2)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
[illegible] 1310	[illegible]	41	12.3	[illegible]	17[illegible]	7.2 / 7.[illegible]	1.37[c]		18 / 0.52		[illegible] / 0.00	[illegible] / 1.41		4.5 / .14			0.1				[illegible]	[illegible]	[illegible]	[illegible]	Maximum 230.	USGS
[illegible] 1145	18,[illegible]	44	12.2	[illegible]	114	7.3 / 7.[illegible]	0.48[c]		4.8 / 0.21		0 / 0.00	62 / 1.02		[illegible] / [illegible]			0.1				[illegible]	49	0	[illegible]	Minimum 1.3	
[illegible] 131	8,[illegible]	4[illegible]	11.1	1[illegible]2	15[illegible]	7.5 / 7.0	1.40[c]		6.5 / 0.28		0 / 0.00	84 / 1.38		2.2 / 0.07			0.0				17	7[illegible]	1	1	Median 23.	
[illegible]	13,[illegible]	5[illegible]	11.4	101	13[illegible]	7.6 / 7.6	1.12[c]		5.7 / 0.25		0 / 0.00	72 / 1.15		[illegible] / 0.07			0.2				19	5[illegible]	[illegible]	1[illegible]		
[illegible] 1140	[illegible]	5[illegible]	1[illegible]	103	112	7.5 / 7.[illegible]	10 / 0.50	4.2 / 0.36	5.0 / 0.22	0.4 / 0.02	0 / 0.00	54 / 0.89	[illegible] / 0.1[illegible]	1.8 / 0.05	0.0 / 0.00	0.1 / 0.01	0.0	1[illegible]	PO_4 0.00 As 0.00 ABS 0.0	71[i]	[illegible]	44		[illegible]		
[illegible] 1430	[illegible]	[illegible]	10.1	98	138	7.2 / 7.[illegible]	1.12[c]		6.[illegible] / 0.30		0 / 0.00	67 / 1.1[illegible]		[illegible] / .[illegible]			0.0				21	[illegible]	1	[illegible]		
[illegible] 1445	1,[illegible]	73	[illegible].2	[illegible]	177	[illegible].1 / 8.2	1.38[c]		4.2 / 0.40		0 / 0.00	89 / 1.46		4.1 / .12			0.1				[illegible]	[illegible]	0	0.7		
[illegible] 1400	1,73[illegible]	7[illegible]	[illegible].0	[illegible]	192	8.2 / 8.[illegible]	1.57[c]		13 / 0.57		0 / 0.00	97 / 1.59		2.0 / .14			0.1				[illegible]	7[illegible]	0	[illegible]		
[illegible] 144[illegible]	1,6[illegible]	73	[illegible]	102	195	8.2 / 8.[illegible]	1[illegible] / 0.50	8.8 / 0.72	13 / 0.57	2.0 / 0.05	[illegible] / 0.00	103 / 1.6[illegible]	12 / 0.27	[illegible].4 / 0.18	0.7 / [illegible].01	[illegible] / 0.00	0.0	[illegible]	PO_4 0.15 As 0.00 ABS 0.0	131[f] 12[illegible]	27	[illegible]	0	15		
[illegible] 1325	[illegible],14[illegible]	5[illegible]	10.0	103	178	7.8 / 7.8	1.34[c]		11 / 0.48		[illegible] / 0.00	93 / 1.52		[illegible].8 / .15			0.1				26	[illegible].7	0	[illegible]		
[illegible] 2345	[illegible],[illegible]	5[illegible]	7.7	73	1[illegible]8	7.[illegible] / 8.1	1.40[c]		14 / 0.61		0 / 0.00	10[illegible] / 1.67		[illegible].4 / .17			[illegible]				[illegible]	[illegible]	0	[illegible]		
[illegible] 2250	[illegible],1[illegible]	4[illegible]	12.[illegible]	1[illegible]	95	7.[illegible] / 7.5	[illegible]		3.7 / 0.16		0 / 0.00	50 / 0.82		1.[illegible] / [illegible]			[illegible]				1[illegible]	44	3	1[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MAD RIVER NEAR ARCATA (STA. 6a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Maximum [illegible]	USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				12	[illegible]	[illegible]	[illegible]	Minimum [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			.1				14	55	4	[illegible]	Median [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / 0.11		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				12	[illegible]	1	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.15	[illegible] / 0.10	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 [illegible] As 0.01 ABS [illegible]	71[f]	14	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 1.40		[illegible] / [illegible]			[illegible]				11	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				10	110	5	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.13			[illegible]				12	[illegible]	[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.14	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	10	PO_4 0.00 As 0.00 ABS 0.0 Tot.Alk. 139	147[f]	10	[illegible]	3	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / .13			.1				20	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			.1				12	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			1.1				17	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MATTOLE RIVER NEAR PETROLIA (STA. 7a)

Date and time sampled P.S.T 1968	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in ppm / equivalents per million																			
1/[illegible] 1[illegible]	4[illegible]	4[illegible]	10.7	93	167	7.6 / 7.9	1.41[c]		5.4 / 0.23		0 / 0.00	73 / 1.20		5.0 / 0.14			0.0				14	70	10	2	Maximum 7,000.+	USGS
2 0[illegible]	[illegible]	50	10.7	95	152	7.2 / 7.7	1.24[c]		6.3 / 0.27		0 / 0.00	67 / 1.10		3.8 / 0.11			0.0				18	62	7	35	Minimum 0.23	
3/[illegible] 0[illegible]	7,4[illegible]	49	11.6	96	99	7.3 / 7.7	0.85[c]		4.5 / 0.20		0 / 0.00	42 / 0.69		3.8 / 0.11			0.1				20	40	6	105	Median 13.	
4/3 0[illegible]	7[illegible]	58	10.6	[illegible]	138	7.4 / 7.8	1.12[c]		5.4 / 0.23		0 / 0.00	64 / 1.05		3.8 / 0.11			0.0				17	56	4	20		
5/9 0830	742	60	9.7	97	163	7.5 / 8.0	22 / 1.10	3.6 / 0.30	7.2 / 0.31	0.8 / 0.02	0 / 0.00	76 / 1.25	14 / 0.29	4.2 / 0.12	0.0 / 0.00	0.2 / 0.01	0.0	13	PO_4 0.10	102[f]	18	70	8	10		
6/5 0930	36[illegible]	62	9.7	[illegible]	1[illegible]5	7.6 / 8.2	1.68[c]		7.4 / 0.32		0 / 0.00	25 / 1.56		3.0 / 0.08			0.0				16	84	6	1		
7/10 1045	125	71	9.8	110	229	7.8 / 8.2	1.98[c]		8.7 / 0.38		0 / 0.00	112 / 1.84		5.3 / 0.15			0.1				16	99	7	1		
8/7 1110	275	68	9.[illegible]	9[illegible]	234	8.0 / 8.0	2.08[c]		9.1 / 0.40		0 / 0.00	116 / 1.90		5.0 / 0.14			0.0				16	104	9	1		
9/5 1435	0[illegible]	74	13.4	121	250	8.3 / 8.3	39 / 1.80	4.7 / 0.39	9.6 / 0.42	1.3 / 0.03	4 / 0.13	115 / 1.88	25 / 0.52	5.4 / 0.15	0.1 / 0.00	0.1 / 0.01	0.0	12	PO_4 0.05 Tot. Alk. 122	154[f] 153[g]	16	110	10	5		
10/9 0950	1,[illegible]	62	9.5	97	2[illegible]1	7.5 / 7.5	1.70[c]		8.9 / 0.39		0 / 0.00	88 / 1.44		4.8 / 0.14			0.0				19	85	13	95		
11/6 0850	4[illegible]2	54	8.9	82	1[illegible]1	7.4 / 7.8	1.60[c]		7.3 / 0.32		0 / 0.00	98 / 1.44		5.0 / 0.14			0.2				17	80	8	1		
12/4 0900	4,5[illegible]0	52	11.0	100	110	7.2 / 7.8	0.84[c]		5.4 / 0.23		0 / 0.00	51 / 0.84		3.6 / 0.10			0.0				21	42	0	350		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

NAVARRO RIVER NEAR NAVARRO (STA. 8B)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	α = 1.00 Dissolved oxygen ppm	α = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1962																										
1/9 0915	84	46	10.3	87	246	7.3	2.06[c]		12 / 0.52		0 / 0.00	125 / 2.05		9.8 / 0.28			0.2			150[e]	20	103	1	1	Median 9.6	USGS
2/14 1435	4500	52	10.2	92	113	7.2	0.84[c]		6.6 / 0.29		0 / 0.00	52 / 0.85		6.0 / 0.17			0.0			69[e]	26	42	0	1,500	Max. 2400.	
3/7 1100	3900	50	10.0	88	118	7.5	0.89[c]		6.9 / 0.30		0 / 0.00	56 / 0.92		5.6 / 0.16			0.1			72[e]	25	45	0	45	Min. 0.23	
4/11 1025	163	56	9.5	90	223	7.8	1.84[c]		12 / 0.52		0 / 0.00	119 / 1.95		6.9 / 0.19			0.0			136[e]	22	92	0	1		
5/9 0806	84	59	11.0	108	249	7.8	25 / 1.25	9.8 / 0.81	13 / 0.57	1.6 / 0.04	0 / 0.00	131 / 2.15	11 / 0.23	7.8 / 0.22	0.1 / 0.00	0.1 / 0.01	0.1	18	PO_4 0.10 ppm	152[f]	21	103	0	3		
6/6 0715	40	58	11.0	106	262	7.4	2.26[c]		13 / 0.57		0 / 0.00	136 / 2.23		8.5 / 0.24			0.1			160[e]	20	113	1	4		
7/9 1658	17	69	11.3	124	265	7.8	2.15[c]		13 / 0.57		0 / 0.00	140 / 2.29		9.4 / 0.27			0.3			161[e]	21	107	0	2		
8/8 1055	15	67	7.6	82	263	7.3	2.20[c]		14 / 0.61		0 / 0.00	147 / 2.41		10 / 0.28			0.1			160[e]	22	110	0	5		
9/12 0820	8.5	61	10.4	105	271	6.8	28 / 1.40	10 / 0.84	13 / 0.57	1.2 / 0.03	0 / 0.00	151 / 2.47	9.0 / 0.19	9.0 / 0.25	0.4 / 0.01	0.1 / 0.01	0.2	17	PO_4 0.10 ppm	167[g]	20	112	0	3		
10/9 1135	22	63	9.1	94	266	7.3	2.23[c]		14 / 0.61		0 / 0.00	152 / 2.49		12 / 0.34			0.1			162[e]	21	111	0	1		
11/14 1100	50	53	10.0	92	275	7.7	2.36[c]		13 / 0.57		0 / 0.00	154 / 2.52		9.0 / 0.25			0.5			168[e]	19	118	0	2		
12/11 1045	165	49	10.8	94	227	7.3	1.88[c]		11 / 0.48		1 / 0.03	121 / 1.98		7.5 / 0.21			0.1		Total Alkalinity: 124 ppm	138[e]	20	94	0	6		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. £ = 0.610

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

NOYO RIVER NEAR FORT BRAGG (STA. 10C)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	a = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/9 1250	34	45	11.6	95	156	7.1	1.18[c]		10 / 0.44		0 / 0.00	74 / 1.21		10 / 0.28			0.1			107[e]	27	59	0	1	Median 13	USGS
2/15 0755	1,800	51	10.5	94	84	6.8	0.61[c]		5.9 / 0.26		0 / 0.00	46 / 0.75		6.2 / 0.17			0.0			58[e]	30	30	0	1,500	Max. 2400.	
3/7 1345	1,250	50	10.2	90	89	7.3	0.62[c]		5.9 / 0.26		0 / 0.00	39 / 0.64		5.2 / 0.15			0.0			61[e]	30	31	0	55	Min. 0.23	
4/11 1345	68	55	10.0	94	132	7.3	0.96[c]		8.8 / 0.38		0 / 0.00	64 / 1.05		7.2 / 0.20			0.0			91[e]	28	48	0	1		
5/9 1200	38	58	11.1	108	147	7.7	14 / 0.70	4.4 / 0.36	10 / 0.44	1.4 / 0.04	0 / 0.00	73 / 1.20	6.0 / 0.12	6.2 / 0.17	0.2 / 0.00	0.1 / 0.01	0.1	19	PO_4 0.05	97[f]	29	53	0	3		
6/6 1010	20	57	11.8	113	157	7.3	1.38[c]		9.8 / 0.43		0 / 0.00	76 / 1.25		7.5 / 0.21			0.0			108[e]	24	69	7	2		
7/10 0835	10	60	10.5	105	166	7.3	1.18[c]		11 / 0.48		0 / 0.00	79 / 1.29		9.4 / 0.27			0.2			114[e]	29	59	0	2		
8/8 1415	40	57	8.0	77	159	7.2	1.11[c]		11 / 0.48		0 / 0.00	76 / 1.25		9.1 / 0.26			0.2			109[e]	30	56	0	5		
9/12 1230	3.5	62	8.1	83	169	6.8	15 / 0.75	5.6 / 0.46	12 / 0.52	1.1 / 0.03	0 / 0.00	81 / 1.33	3.2 / 0.07	11 / 0.31	0.0 / 0.00	0.1 / 0.01	0.2	21	PO_4 0.10	106[g]	30	60	0	3		
10/9 1550	51	60	9.0	90	168	7.3	1.26[c]		12 / 0.52		0 / 0.00	87 / 1.43		9.7 / 0.27			0.1			116[e]	29	63	0	5		
11/14 1330	24	50	11.1	98	170	7.3	1.20[c]		10 / 0.44		0 / 0.00	88 / 1.44		7.5 / 0.21			0.2			117[e]	27	60	0	2		
12/11 1345	125	49	11.9	103	134	7.2	0.99[c]		8.5 / 0.37		0 / 0.00	69 / 1.13		6.2 / 0.17			0.1			92[e]	27	50	0	6		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. $f = 0.687$

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

OUTLET CREEK NEAR LONGVALE (STA. 5b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	60	[illegible]	11.7	[illegible]	17[illegible]	7.6 / 7.[illegible]	[illegible] / 1.44[illegible]		[illegible] / 0.30		0 / 0.00	[illegible] / 1.3[illegible]		8.0 / 0.23			0.5				17	72	2	1		USGS
[illegible]	95	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 1.[illegible]		[illegible] / 0.[illegible]		0 / 0.00	[illegible] / 1.3[illegible]		[illegible] / 0.21			0.[illegible]				2[illegible]	68	[illegible]	4		
[illegible]	2,170	[illegible]	11.[illegible]	[illegible]	[illegible]	7.1 / 7.4	[illegible] / 0.[illegible]		[illegible] / .11		0 / 0.00	[illegible] / 0.54		[illegible] / 0.04			[illegible]				18	28	1	5[illegible]		
[illegible]	160	[illegible]	1[illegible]	[illegible]	1[illegible]	7.7 / 7.[illegible]	[illegible] / 1.1[illegible]		[illegible] / 0.17		0 / 0.00	[illegible] / 1.1[illegible]		[illegible] / 0.12			0.1				1[illegible]	5[illegible]	1	1		
[illegible]	47	[illegible]	1[illegible]	1[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]	7.[illegible] / 0.[illegible]	[illegible] / 0.45	1.[illegible] / 0.03	0 / 0.00	1.[illegible] / 1.7[illegible]	[illegible] / 0.17	7.5 / 0.21	0.1 / 0.00	0.1 / 0.01	0.[illegible]	11	PO_4 0.1[illegible]	118[f]	2[illegible]	82	0	3		
[illegible]	1.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		11 / [illegible]		[illegible] / [illegible]	11[illegible] / 1.8[illegible]		[illegible] / 0.23			0.7		Tot. Alk. 12[illegible]		2[illegible]	[illegible]	0	2		
[illegible]	[illegible]	[illegible]	[illegible]	11[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		1[illegible] / .71		0 / 0.00	14[illegible] / 0.35		1[illegible] / 0.42			1.4				21	113	[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 0.45		17 / 0.74		[illegible] / 0.07	154 / 2.52		21 / 0.59			1.[illegible]		Tot. Alk. 15[illegible]		2[illegible]	1[illegible]	[illegible]	5		
[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]	14 / 1.1[illegible]	19 / 0.83	1.[illegible] / 0.[illegible]	5 / 0.17	144 / 2.36	[illegible] / 0.17	[illegible] / 0.8[illegible]	.[illegible] / 0.01	0.[illegible] / 0.01	3.1	11	Tot. Alk. 15[illegible] PO_4 0.00	1[illegible][f] 1[illegible][f]	24	131	5	3		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	111	[illegible] / 7.0	[illegible] / 0.[illegible]		4.3 / 0.19		0 / 0.00	39 / 0.64		6.0 / 0.17			0.[illegible]				1[illegible]	43	11	[illegible]00		
[illegible]	[illegible]	[illegible]	10.[illegible]	[illegible]	1[illegible]	7.[illegible] / 7.1	[illegible] / 1.4[illegible]		[illegible] / .3[illegible]		0 / 0.00	91 / 1.49		8.8 / 0.25			0.3				21	73	3	5		
[illegible]	14[illegible]	[illegible]	1[illegible]	[illegible]	14[illegible]	7.[illegible] / 8.1	[illegible] / 1.16[illegible]		[illegible] / 0.28		0 / 0.00	74 / 1.21		4.8 / 0.14			0.4				17	58	0	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

REDWOOD CREEK AT ORICK (STA. 3b)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/9 1500	490	47	10.9	92	94	7.1/7.4	—/0.80[c]		2.7/0.12		0/0.00	39/0.64		4.6/0.13			0.0				13	40	8	3	Maximum 7,000.	USGS
2/6 1310	890	49	10.8	94	89	7.2/7.5	—/0.70[c]		3.2/0.14		0/0.00	40/0.66		5.0/0.14			0.0				16	38	5	100	Minimum 0.45	
3/6 1215	4,020	46	11.5	97	64	7.1/7.5	—/0.52[c]		2.3/0.10		0/0.00	26/0.43		2.8/0.08			0.0				16	26	5	200	Median 23.	
4/3 1200	1,110	53	10.7	98	76	7.2/7.7	—/0.60[c]		2.5/0.11		0/0.00	23/0.38		3.4/0.10			0.0				15	3[illegible]	11	45		
5/10 0850	540	54	10.3	95	90	7.3/7.6	13/0.65	1.1/0.09	3.6/0.16	0.5/0.02	0/0.00	40/0.66	7.2/0.15	3.5/0.10	0.0/0.00	0.2/0.01	0.0	1.2	PO_4 1.00	55[f]	17	37	4	35		
6/6 1120	200	62	10.1	103	112	7.3/7.6	—/0.92[c]		3.9/0.17		0/0.00	52/0.85		4.2/0.12			0.1				16	46	3	4		
7/11 0935	84	61	9.4	95	133	7.2/7.9	—/1.10[c]		5.6/0.24		0/0.00	62/1.02		5.5/0.16			0.0				18	55	4	[illegible]		
8/9 0845	411	61	8.8	89	131	7.2/7.3	—/1.08[c]		4.8/0.21		0/0.00	52/0.85		5.4/0.15			0.1				16	54	11	35		
9/7 1020	36	59	9.2	90	141	7.2/7.9	20/1.00	1.9/0.16	5.5/0.24	0.4/0.01	0/0.00	66/1.08	8.6/0.18	7.2/0.20	0.5/0.01	0.1/0.01	0.0	11	PO_4 1.00	88[f] 90[g]	17	58	4	5		
10/11 1000	2,750	56	10.1	96	82	7.2/7.2	—/0.67[c]		3.3/0.14		0/0.00	33/0.54		4.0/0.11			0.0				17	34	7	100		
11/8 0920	510	52	10.5	95	116	7.2/7.9	—/0.96[c]		4.5/0.20		0/0.00	56/0.92		5.4/0.15			0.0				17	48	2	1		
12/5 1130	3,840	51	11.2	100	67	7.1/7.0	—/0.52[c]		4.6/0.20		0/0.00	28/0.46		3.5/0.10			0.0				28	26	3	50		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources.(DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

RUSSIAN RIVER AT GUERNEVILLE (STA. 10)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1420	385	53	10.2	94	295	7.5	2.66[c]		11 / 0.48		0 / 0.00	149 / 2.44		9.9 / 0.28			0.4			176[e]	15	133	11	2	Median 9.6	USGS
2/13 1550	51,300	53	9.9	91	82	7.1	0.68[c]		3.5 / 0.15		0 / 0.00	38 / 0.62	2.0 / 0.04	2.8 / 0.08	1.7 / 0.03		0.0			49[e]	18	34	3	1,000	Max. >7000.	
3/6 1345	30,300	49	10.3	90	102	7.7	0.92[c]		4.0 / 0.17		0 / 0.00	51 / 0.84		2.8 / 0.08			0.1			61[e]	16	46	4	180	Min. 1.3	
4/10 1410	529	50	10.0	88	292	8.1	2.62[c]		12 / 0.52		0 / 0.00	157 / 2.57		9.0 / 0.25			0.2			174[e]	17	131	2	2		
5/8 1258	373	65	12.2	128	304	8.0	28 / 1.40	17 / 1.36	11 / 0.48	1.6 / 0.04	0 / 0.00	162 / 2.66	16 / 0.33	6.2 / 0.17	2.4 / 0.04	0.0 / 0.00	0.3	17	PO_4 0.35	180[f]	15	138	5	8		
6/5 1217	170	70	10.6	118	305	7.6	2.84[c]		10 / 0.44		0 / 0.00	166 / 2.72		6.2 / 0.17			0.2			181[e]	13	142	6	5		
7/9 1103	123	74	12.0	139	297	8.0	2.74[c]		10 / 0.44		0 / 0.00	164 / 2.69		6.2 / 0.17			0.4			176[e]	14	137	3	20		
8/7 1350	156	70	8.7	97	272	8.1	2.44[c]		9.3 / 0.40		0 / 0.00	156 / 2.56		5.4 / 0.15			0.3			162[e]	14	122	0	10		
9/11 1350	164	71	11.6	131	260	7.2	26 / 1.30	14 / 1.16	8.6 / 0.37	1.0 / 0.03	0 / 0.00	153 / 2.51	10 / 0.21	5.0 / 0.14	0.3 / 0.00	0.1 / 0.01	0.3	15	PO_4 0.30	143[g]	13	123	0	6		
10/8 1700	188	68	10.0	109	265	7.9	2.41[c]		10 / 0.44		3 / 0.10	150 / 2.46		9.0 / 0.25			0.3		Total Alkalinity: 156	157[e]	15	120	0	8		
11/13 1230	481	64	10.6	110	269	7.7	2.36[c]		9.8 / 0.43		0 / 0.00	141 / 2.31		7.2 / 0.20			0.5			159[e]	15	118	2	3		
12/10 1210	730	54	9.4	87	258	7.3	2.31[c]		9.3 / 0.40		0 / 0.00	144 / 2.36		6.2 / 0.17			0.3			153[e]	15	116	0	20		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves f = 0.595

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10
ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

RUSSIAN RIVER NEAR HEALDSBURG (STA. 9)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	a = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1250	268	57	10.9	105	279	7.5	—/2.60[c]		9.1/0.40		1/0.03	147/2.41		7.6/0.21			0.4		Total Alkalinity: 148	165[e]	13	130	9	1	Median 2.3	USGS
2/13 1340	30,200	52	9.7	88	90	7.2	—/0.86[c]		4.0/0.17		0/0.00	46/0.75		2.0/0.06			0.0			53[e]	17	43	5	2,800	Max. 2400.	
3/6 1230	18,600	48	10.8	93	105	7.7	—/0.96[c]		4.0/0.17		0/0.00	55/0.90		1.5/0.04			0.1			62[e]	15	48	3	240	Min. 0.06	
4/10 1245	752	65	10.0	105	286	8.3	—/2.68[c]		9.9/0.43		0/0.00	158/2.59		6.0/0.17			0.3			168[e]	14	134	4	2		
5/8 1120	284	64	11.0	114	281	7.9	28/1.40	15/1.20	9.8/0.43	1.2/0.03	0/0.00	153/2.51	15/0.31	4.5/0.13	2.1/0.03	0.0/0.00	0.3	15	PO_4 0.05	166[f]	14	130	5	8		
6/7 1145	180	73	10.7	123	281	8.2	—/2.66[c]		8.9/0.39		0/0.00	156/2.56		5.5/0.16			0.3			166[e]	13	133	5	3		
7/10 1800	151	74	12.0	139	276	8.4	—/2.54[c]		9.8/0.43		0/0.00	150/2.46		6.6/0.19			0.4			162[e]	14	127	4	5		
8/7 1235	195	72	8.7	99	255	8.2	—/2.28[c]		9.7/0.42		0/0.00	146/2.39		6.2/0.17			0.4			150[e]	16	114	0	5		
9/11 1205	200	71	11.5	129	243	6.7	26/1.30	12/0.96	8.1/0.35	0.8/0.02	4/0.13	133/2.18	10/0.21	4.0/0.11	0.3/0.00	0.0/0.00	0.4	12	PO_4 0.10 Total Alkalinity: 141	151[g]	13	113	0	2		
10/8 1440	189	70	9.7	108	242	7.8	—/2.25[c]		9.0/0.39		0/0.00	144/2.36		7.4/0.21			0.3			143[e]	15	112	0	3		
11/15 1445	440	57	13.0	125	237	8.3	—/2.14[c]		8.1/0.35		0/0.00	136/2.23		4.8/0.14			0.5			140[e]	14	107	0	4		
12/10 1055	388	52	9.8	89	252	7.5	—/2.32[c]		8.5/0.37		0/0.00	143/2.34		4.9/0.14			0.4			149[e]	14	116	0	20		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves f = 0.590

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE P-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

RUSSIAN RIVER NEAR HOPLAND (STA. 8A)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen (a = 0.98) ppm	Dissolved oxygen (a = 0.98) %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1640	180	52	10.9	99	203	7.2	1.76[c]		8.7 / 0.38		0 / 0.00	105 / 1.72		6.5 / 0.18			0.4			120[e]	18	88	2	9	Median 50	USGS
2/15 1310	6840	53	9.7	91	93	6.8	0.74[c]		4.4 / 0.19		0 / 0.00	42 / 0.69		4.0 / 0.11			0.0			55[e]	20	37	3	15	Max. 2400.	
3/8 1130	4260	48	10.3	90	135	7.3	1.18[c]		5.4 / 0.23		0 / 0.00	67 / 1.10		3.8 / 0.11			0.2			80[e]	16	59	4	90	Min. 0.23	
4/11 1730	685	55	9.3	89	153	7.4	1.30[c]		5.9 / 0.26		0 / 0.00	78 / 1.28		6.0 / 0.17			0.0			90[e]	17	65	1	40		
5/10 1203	133	60	12.0	122	217	7.9	21 / 1.05	9.4 / 0.77	9.6 / 0.42	1.3 / 0.03	0 / 0.00	111 / 1.82	8.0 / 0.17	5.0 / 0.14	3.2 / 0.05	0.1 / 0.01	0.3	13	PO_4 0.35	126[f]	19	91	0	6		
6/7 0935	135	67	10.4	114	197	7.5	1.84[c]		9.7 / 0.42		0 / 0.00	101 / 1.66		4.5 / 0.13			0.2			116[e]	19	92	9	4		
7/10 1637	155	68	10.8	120	171	7.6	1.48[c]		6.6 / 0.29		0 / 0.00	90 / 1.48		3.8 / 0.11			0.3			101[e]	16	74	0	1		
8/9 1020	239	58	7.9	78	177	7.4	1.60[c]		7.7 / 0.33		0 / 0.00	98 / 1.61		5.8 / 0.16			0.3			104[e]	17	80	0	5		
9/13 1347	209	64	9.8	104	177	7.2	20 / 1.00	7.3 / 0.60	6.3 / 0.27	0.7 / 0.02	0 / 0.00	98 / 1.61	8.0 / 0.17	3.0 / 0.08	1.1 / 0.02	0.0 / 0.00	0.2	9.3	PO_4 0.10	104[g]	14	80	0	7		
10/10 1335	236	66	9.4	102	190	7.5	1.62[c]		8.9 / 0.39		0 / 0.00	103 / 1.69		6.9 / 0.19			0.3			112[e]	19	81	0	7		
11/15 1315	345	56	10.0	97	177	7.4	1.54[c]		6.7 / 0.29		0 / 0.00	102 / 1.67		4.0 / 0.11			0.6			104[e]	16	77	0	15		
12/12 1030	900	52	9.8	90	164	7.3	1.42[c]		7.2 / 0.31		0 / 0.00	90 / 1.48		3.6 / 0.10			0.3			97[e]	18	71	0	25		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.590

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (1)

RUSSIAN RIVER, EAST FORK AT POTTER VALLEY POWERHOUSE (STA. 10A)

Date and time sampled PST	Discharge in cfs	Temp in °F	a = 0.97 Dissolved oxygen ppm	a = 0.97 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1525	312	46	11.2	97	154	7.3	1.35[c]		5.2 / 0.23		0 / 0.00	77 / 1.26		4.5 / 0.13			0.4			92[e]	15	68	5	15	Median 23	USGS
2/15 1130	298	46	11.4	98	118	7.1	1.13[c]		3.5 / 0.15		0 / 0.00	62 / 1.02		2.5 / 0.07			0.1			71[e]	12	57	6	70	Max. 620.	
3/7 1610	302	44	10.5	88	107	7.5	0.96[c]		3.2 / 0.14		0 / 0.00	56 / 0.92		2.2 / 0.06			0.1			64[e]	13	48	2	95	Min. 0.23	
4/11 1625	310	58	9.1	92	122	7.9	1.08[c]		4.3 / 0.19		0 / 0.00	65 / 1.07		1.6 / 0.05			0.0			73[e]	15	54	1	20		
5/10 1025	107	56	11.1	109	151	8.1	17 / 0.85	5.5 / 0.45	5.9 / 0.26	0.9 / 0.02	0 / 0.00	79 / 1.29	8.0 / 0.17	2.2 / 0.06	0.1 / 0.00	0.1 / 0.01	0.4	13	PO_4 0.05	92[f]	16	65	0	6		
6/7 0812	147	61	10.0	104	143	7.7	1.34[c]		6.4 / 0.28		0 / 0.00	76 / 1.25		2.0 / 0.06			0.1			86[e]	17	67	5	4		
7/10 1520	201	64	9.8	106	137	8.0	1.21[c]		4.8 / 0.21		0 / 0.00	74 / 1.21		2.0 / 0.06			0.2			82[e]	15	61	0	5		
8/9 0744	222	56	8.5	83	139	7.8	1.20[c]		4.6 / 0.20		0 / 0.00	78 / 1.28		2.0 / 0.06			0.2			83[e]	14	60	0	5		
9/13 0914	222	75	8.3	101	149	7.0	18 / 0.90	5.4 / 0.44	4.9 / 0.21	0.4 / 0.01	0 / 0.00	83 / 1.36	8.0 / 0.17	2.5 / 0.07	0.2 / 0.00	0.0 / 0.00	0.0	15	PO_4 0.15	105[g]	13	67	0	2		
10/10 1155	338	63	8.4	90	161	7.5	1.40[c]		6.2 / 0.27		0 / 0.00	87 / 1.43		5.4 / 0.15			0.3			97[e]	16	70	0	20		
11/15 1145	309	54	10.1	97	150	7.6	1.28[c]		6.0 / 0.26		0 / 0.00	82 / 1.34		3.5 / 0.10			0.6			90[e]	17	64	0	45		
12/12 0905	302	46	10.4	90	145	7.2	1.27[c]		5.5 / 0.24		0 / 0.00	80 / 1.31		2.8 / 0.08			0.4			87[e]	16	64	0	35		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.600

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SALMON RIVER AT SOMESBAR (STA. 2a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/10 1355	1,010	40	12.5	96	87	7.3/7.8	—/0.82[c]		1.5/0.07		0/0.00	47/0.77		1.8/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Maximum 230.	[illegible]
2/8 1115	3,200	44	11.8	96	88	7.3/7.8	—/0.84[c]		1.9/0.08		0/0.00	[illegible]/0.82		[illegible]/0.03			[illegible]				[illegible]	[illegible]	1	[illegible]	Minimum 0.23	
3/8 1245	1,730	45	11.9	98	122	7.5/8.0	—/1.18[c]		2.9/0.13		0/0.00	68/1.11		[illegible]/0.03			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Median [illegible]	
4/5 1000	3,700	48	11.6	100	80	7.3/7.7	—/0.72[c]		1.5/0.07		0/0.00	44/0.72		1.9/0.03			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
5/8 1215	3,240	51	11.1	99	56	7.2/7.8	7.9/0.39	1.3/0.11	1.2/0.05	0.7/0.02	0/0.00	31/0.51	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]	[illegible]	PO_4, [illegible]	37[f]	[illegible]	[illegible]	[illegible]	[illegible]		
6/4 1530	1,770	53	10.5	96	60	7.2/7.7	—/0.56[c]		1.4/0.06		0/0.00	33/0.54		2.5/0.07			[illegible]				[illegible]	[illegible]	1	[illegible]		
7/9 1525	379	69	8.5	93	87	[illegible]/8.0	—/0.76[c]		2.1/0.09		0/0.00	48/0.79		1.2/0.03			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
8/6 1445	267	68	8.5	92	117	8.2/8.2	—/1.04[c]		3.4/0.15		0/0.00	68/1.11		[illegible]/0.11			[illegible]				[illegible]	[illegible]	[illegible]	1		
9/4 1530	180	73	9.4	108	130	8.2/7.1	18/0.90	3.3/0.27	3.5/0.15	0.6/0.02	0/0.00	68/1.11	[illegible]/0.03	[illegible]/0.07	1.6/0.03	[illegible]/0.01	[illegible]	11	PO_4, [illegible]	[illegible][f] [illegible][g]	11	[illegible]	[illegible]	[illegible]		
10/8 1430	681	56	11.2	107	100	7.8/7.1	—/0.92[c]		2.4/0.10		0/0.00	57/0.93		[illegible]/0.06			0.6				[illegible]	[illegible]	[illegible]	[illegible]		
11/5 1420	544	54	10.5	97	111	7.5/8.0	—/0.98[c]		2.5/0.11		0/0.00	66/1.08		[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	1		
12/3 1330	14,400	49	12.4	108	76	7.3/7.6	—/0.89[c]		2.6/0.09		0/0.00	42/0.69		1.[illegible]/0.03			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SCOTT RIVER NEAR FORT JONES (STA. 1b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.3 / 7.7	[illegible] / 1.9[illegible]		2.5 / 0.11		[illegible] / [illegible]	41 / 1.49		3.[illegible] / 0.0[illegible]			0.0				7	78	3	4	Maximum 620.	USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	7.[illegible] / 7.2	[illegible] / 1.2[illegible]		2.7 / 0.12		0 / 0.00	79 / 1.29		2.5 / 0.07			0.1				[illegible]	64	0	15	Minimum 0.23	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	192	7.[illegible] / 8.1	[illegible] / 1.0[illegible]		3.2 / 0.14		0 / 0.00	110 / 1.80		2.0 / 0.06			0.0				7	95	5	20	Median 9.6	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	7.[illegible] / 8.1	[illegible] / 1.4[illegible]		2.0 / 0.09		0 / 0.00	88 / 1.44		1.5 / 0.04			0.[illegible]				[illegible]	74	2	15		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5 / 7.[illegible]	[illegible] / [illegible]	[illegible] / 0.[illegible]	2.7 / 0.1[illegible]	[illegible] / 0.01	0 / 0.00	81 / 1.33	2.0 / 0.04	2.5 / 0.07	0.[illegible] / 0.01	0.1 / 0.01	0.0	17	PO4 0.0[illegible]	[illegible][i]	[illegible]	69	3	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.3[illegible]		2.4 / 0.10		0 / 0.00	83 / 1.36		1.[illegible] / 0.05			0.1				7	67	0	2		
[illegible]	[illegible]	7[illegible]	11.[illegible]	[illegible]	[illegible]	8.2 / 7.5	[illegible] / 2.4[illegible]		5.0 / 0.22		5 / 0.17	144 / 2.36		3.0 / 0.10			0.0		Tot. Alk. 153		8	124	0	0.[illegible]		
[illegible]	[illegible]	7[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / 8.3	[illegible] / 2.7[illegible]		5.4 / 0.23		3 / 0.10	165 / 2.70		3.0 / 0.10			0.0		Tot. Alk. 171		8	13[illegible]	[illegible]	2		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / 7.3	2[illegible] / 1.[illegible]	2.[illegible] / 1.1[illegible]	5.5 / 0.24	0.7 / 0.0[illegible]	3 / 0.10	1[illegible]4 / 2.[illegible]	2.0 / 0.06	5.2 / 0.1[illegible]	2.[illegible] / 0.04	0.1 / 0.01	[illegible]	1[illegible]	PO_4 0.00 Tot. Alk. 170	164[f] 147[f]	8	135	[illegible]	2		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	2[illegible]	[illegible] / 7.4	[illegible] / [illegible]		5.3 / 0.23		[illegible] / 0.3[illegible]	1[illegible]1 / 2.64		4.0 / 0.11			0.[illegible]		Tot. Alk. 179		7	143		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12[illegible]	7.3 / 7.[illegible]	[illegible] / 1.14[illegible]		2.1 / 0.09		0 / 0.00	74 / 1.21		1.4 / 0.04			0.0				7	57	0	2[illegible]		
[illegible]	1.[illegible]	44	1.[illegible]	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 1.[illegible]		2.9 / 0.15		[illegible] / 0.00	48 / 1.61		1.5 / 0.04			0.0				7	62	2	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SHASTA RIVER NEAR YREKA (STA. 1a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1/[illegible] 0935	205	44	11.3	92	514	8.1 / 8.1	— / 4.13[c]		40 / 1.74		0 / 0.00	296 / 4.85		26 / 0.73			0.4				30	207	0	10	Maximum 620.	USGS
2/7 1210	360	45	10.7	88	4[illegible]	8.1 / 8.4	— / 3.9[c]		41 / 1.78		4 / 0.13	274 / 4.49		21 / 0.59			0.0		Tot. Alk. 282		33	178	0	3	Minimum 0.62	
3/7 11[illegible]	33[illegible]	4[illegible]	1[illegible].7	[illegible]	48[illegible]	8.1 / 8.3	— / 4.08[c]		35 / 1.52		6 / 0.20	273 / 4.47		18 / 0.51			0.4		Tot. Alk. 285		27	204	0	10	Median 22.	
4/[illegible] 11[illegible]	[illegible]	5[illegible]	10.4	1[illegible]	421	8.3 / 8.[illegible]	— / 3.40		30 / 1.30		12 / 0.40	224 / 3.67		17 / 0.48			0.3		Tot. Alk. 248		28	170	0	10		
5/10 15[illegible]	173	[illegible]	[illegible].1	[illegible]	5[illegible]	8.3 / 8.7	3[illegible] / 1.80	33 / 2.74	46 / 2.00	2.7 / 0.07	79 / 0.63	297 / 4.87	11 / 0.23	2[illegible] / 0.73	0.3 / 0.00	0.3 / 0.02	0.6	48	PO_4 0.40 Tot. Alk. 3[illegible]5	3[illegible][f]	3[illegible]	2[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.2 / 8.[illegible]	— / 4.8[illegible]		42 / 2.13		7 / 0.23	346 / 5.67		25 / 0.71			0.[illegible]		Tot. Alk. 360		31	241	0	2		
7/[illegible] [illegible]	45	[illegible]	[illegible].1	[illegible]	[illegible]57	8.4 / 8.3	— / 5.13[c]		52 / 2.26		5 / 0.17	364 / 5.97		3[illegible] / 0.90			0.6		Tot. Alk. 373		31	250	0	3		
[illegible]/14 [illegible]	[illegible]	[illegible]	[illegible].[illegible]	71	[illegible]	8.4 / 8.5	— / 5.11[c]		56 / 2.44		13 / 0.43	361 / 5.92		34 / 0.96			0.7		Tot. Alk. 387		33	250	[illegible]	1		
[illegible] [illegible]	[illegible]	[illegible]	[illegible].7	[illegible]	[illegible]41	8.1 / 8.1	3[illegible] / 1.70	27 / 3.[illegible]	52 / 2.26	4.4 / 0.11	0 / 0.00	378 / 6.20	7.2 / 0.15	34 / 0.[illegible]	1.8 / 0.03	0.3 / 0.02	0.6	56	PO_4 0.45	417[f] 403[g]	31	24[illegible]	[illegible]	8		
1/[illegible] [illegible]	15[illegible]	[illegible]	[illegible].6	[illegible]	5[illegible]	8.3 / 8.4	— / 4.34[c]		46 / 1.91		11 / 0.37	296 / 4.85		24 / 0.68			0.5		Tot. Alk. 318		3[illegible]	[illegible]02	0	[illegible]		
11/1[illegible] [illegible]	1[illegible]	4[illegible]	[illegible].4	7[illegible]	5[illegible]	8.1 / 8.5	— / 3.98[c]		46 / 1.91		12 / 0.40	292 / 4.79		24 / 0.68			0.3		Tot. Alk. 316		3[illegible]	1[illegible]	0	5		
1/[illegible] [illegible]	[illegible]	4[illegible]	[illegible].[illegible]	[illegible]	5[illegible]1	8.4 / 8.5	— / 4.50[c]		38 / 1.57		16 / 0.53	3[illegible] / 4.92		2[illegible] / 0.62			0.6		Tot. Alk. 2[illegible]2		2[illegible]	225	0	1		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SMITH RIVER NEAR CRESCENT CITY (STA. 3a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible] 16[illegible]	[illegible]	[illegible]	11.2	[illegible]	[illegible]	7.3 / 7.8	— / 0.40		1.5 / 0.07		0 / 0.00	53 / 0.87		3.5 / 0.10			0.0				7	47	4	1	Maximum 230.	USGS
[illegible] 1[illegible]	1,7[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.3 / 7.4	— / 0.21[c]		2.0 / 0.07		0 / 0.00	52 / 0.92		3.4 / 0.10			0.0				9	46	0	4	Minimum 0.046	
[illegible] 15[illegible]	4,7[illegible]	47	12.3	[illegible]	7[illegible]	7.3 / 7.8	— / 0.80[c]		1.2 / 0.05		0 / 0.00	45 / 0.74		1.5 / 0.04			0.0				6	40	3	10	Median 2.2	
[illegible] 14[illegible]	4,23[illegible]	[illegible]	11.[illegible]	[illegible]	7[illegible]	7.3 / 7.[illegible]	— / 0.76[c]		1.4 / 0.06		0 / 0.00	44 / 0.72		1.5 / 0.04			0.0				7	38	2	2		
[illegible] 122[illegible]	2,7[illegible]	53	11.2	[illegible]	84	7.5 / 7.8	6.3 / 0.31	6.1 / 0.50	1.5 / 0.07	0.3 / 0.01	0 / 0.00	47 / 0.77	0.8 / 0.02	1.6 / 0.05	0.0 / 0.00	0.1 / 0.01	0.0	14	PO_4 0.00	54[f]	8	40	1	1.5		
[illegible] 143[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	103	7.7 / 7.[illegible]	— / 0.90[c]		1.8 / 0.08		0 / 0.00	60 / 0.98		1.8 / 0.05			0.0				8	48	0	2		
7/11 14[illegible]	[illegible]	[illegible]	9.3	98	123	8.0 / 8.1	— / 1.19[c]		3.4 / 0.15		0 / 0.00	71 / 1.16		3.0 / 0.08			0.0				11	59	1	0.9		
[illegible] 124	[illegible]	[illegible]	8.3	[illegible]	114	7.7 / 7.8	— / 1.10[c]		2.6 / 0.11		0 / 0.00	64 / 1.05		4.2 / 0.12			0.0				9	55	3	2		
[illegible] 12[illegible]	895	67	9.7	104	137	7.9 / 8.1	8.0 / 0.40	12 / 0.96	3.7 / 0.16	0.1 / 0.00	0 / 0.00	80 / 1.31	3.2 / 0.07	4.2 / 0.12	0.2 / 0.00	0.1 / 0.01	0.0	14	PO_4 0.25	85[f] 83[g]	11	68	2	1		
1[illegible]/11 143[illegible]	85,80[illegible]	[illegible]	12.3	114	77	7.3 / 7.4	— / 0.75[c]		1.7 / 0.07		0 / 0.00	44 / 0.72		1.5 / 0.04			0.0				9	38	2	35		
11/8 120[illegible]	8[illegible]	50	11.3	100	114	7.4 / 8.0	— / 1.08[c]		2.3 / 0.10		0 / 0.00	68 / 1.11		3.1 / 0.09			0.0				8	54	0	1		
12/5 1445	8,[illegible]	50	12.3	109	80	7.2 / 7.6	— / 0.74[c]		1.9 / 0.08		0 / 0.00	44 / 0.72		2.2 / 0.06			0.1				10	37	1	5		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE 8-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR BURNT RANCH (STA. 41)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible] 1550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/8.0	[illegible]/1.1[illegible]		[illegible]/0.11		[illegible]/0.00	[illegible]/1.0[illegible]		[illegible]/.15			[illegible]				[illegible]	98	6	1		USGS
2/8 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/7.9	[illegible]/[illegible]		[illegible]/0.1[illegible]		[illegible]/0.00	[illegible]/1.0[illegible]		2.6/0.07			[illegible]				10	93	2	9[illegible]		
3/8 1530	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.7/8.0	[illegible]/1.4[illegible]		[illegible]/0.13		[illegible]/0.00	[illegible]/1.3[illegible]		1.5/[illegible]			[illegible]				8	74	7	15		
4/5 1325	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/0.00	[illegible]/1.0[illegible]		[illegible]/0.06			[illegible]				8	9[illegible]	1	4		
5/10 1240	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.6/7.[illegible]	1.3/0.05	3.3/0.27	[illegible]/0.11	0.3/0.01	0/0.00	5.3/0.87	3.0/0.0[illegible]	2.2/0.06	0.1/0.0[illegible]	0.[illegible]/0.00	0.0	11	PO_4 [illegible]	[illegible]1[f]	11	46	3	1		
6/4 1100	[illegible]	5[illegible]	[illegible]	[illegible]	[illegible]	7.7/7.9	0.8[illegible]		[illegible]/0.1[illegible]		[illegible]/0.00	5.[illegible]/0.8[illegible]		2.5/0.07			0.1				10	44	3	3		
7/12 1045	[illegible]	[illegible]	[illegible]	[illegible]	114	[illegible]/7.[illegible]	[illegible]/1.0[illegible]		2.[illegible]/0.15		[illegible]/0.00	[illegible]/1.33		4.5/0.13			[illegible]				12	55	3	1		
8/10 1030	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/7.[illegible]	[illegible]/.91		[illegible]/0.1[illegible]		[illegible]/0.00	45/0.74		4.8/0.14			[illegible].1				13	40	3	5		
9/8 1120	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	8.0/8.0	1[illegible]/0.8[illegible]	[illegible]/0.[illegible]	[illegible].1/[illegible]	0.5/0.01	0/0.00	8[illegible]/1.38	4.[illegible]/0.1	7.2/0.20	[illegible].1/0.00	[illegible].0/0.00	[illegible]	11	PO_4 [illegible]	[illegible]3[f] [illegible]1[e]	13	72	3	10		
[illegible] 1110	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]/7.4	[illegible]/.8[illegible]		[illegible].[illegible]/0.11		0/0.00	[illegible]/1.8[illegible]		[illegible]/0.10			0.0				12	42	1	[illegible]		
11/5 1100	[illegible]	[illegible]	1[illegible]	[illegible]	1[illegible]	7.6/8.3	[illegible]/1.4[illegible]		[illegible]/0.17		1/0.03	[illegible]/1.2[illegible]		6.0/0.17			0.0		Tot. Alk. 81		11	70	4	1		
[illegible] 1200	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]/7.8	[illegible]/1.1[illegible]		[illegible]/0.14		2/0.00	[illegible]/1.18		[illegible]/0.[illegible]			[illegible]				10	[illegible]	[illegible]	2		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR HOOPA (STA. 4)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1/10 1130	1,930	42	10.9	87	150	7.3/7.9	—/1.45[c]		2.6/0.11		0/0.00	79/1.29		4.8/0.14			0.0				7	73	8	2	Maximum 1,300.	USGS
2/8 1325	14,100	45	11.8	98	126	7.5/7.6	—/1.20[c]		2.9/0.13		0/0.00	72/1.18		3.0/0.08			0.1				10	60	1	70	Minimum 0.2	
3/8 1435	8,810	47	11.3	96	152	7.7/7.9	—/1.50[c]		2.5/0.11		0/0.00	84/1.38		1.8/0.05			0.0				7	75	6	20	Median 2.3	
4/5 1215	8,180	53	10.8	99	127	7.6/7.8	—/1.24[c]		2.0/0.09		0/0.00	71/1.16		1.4/0.04			0.0				7	62	4	19		
5/8 1000	3,740	58	10.0	97	119	7.5/7.9	14/0.70	5.1/0.42	2.5/0.11	0.5/0.01	0/0.00	65/1.07	4.8/0.10	2.4/0.07	0.0/0.00	0.0/0.00	0.0	12	PO_4 0.00 As 0.00 ABS 0.0	73[f]	9	56	3	3.5		
6/4 1230	2,020	60	9.9	99	98	7.7/7.9	—/0.88[c]		2.3/0.10		0/0.00	54/0.89		1.5/0.04			0.0				10	44	0	3		
7/9 1305	865	71	9.0	101	150	8.0/8.1	—/1.41[c]		3.8/0.17		0/0.00	82/1.34		3.7/0.10			0.1				11	70	3	0.9		
8/6 1220	522	72	8.3	94	177	8.0/8.1	—/1.65[c]		4.7/0.20		0/0.00	96/1.57		7.4/0.21			0.0				11	83	4	1		
9/4 1230	460	73	8.6	99	190	8.0/8.2	22/1.10	9.0/0.74	5.0/0.22	0.5/0.01	0/0.00	104/1.70	9.2/0.19	6.0/0.17	0.4/0.01	0.0/0.00	0.0	13	PO_4 0.05 As 0.00 ABS 0.0	117[f]	11	92	7	2		
10/8 1145	850	58	10.4	101	175	7.8/7.9	—/1.64[c]		4.3/0.19		0/0.00	94/1.54		5.0/0.14			0.0				10	82	5	3		
11/5 1205	1,280	57	10.6	102	179	7.8/8.2	—/1.68[c]		4.8/0.21		0/0.00	100/1.64		4.8/0.14			0.0				11	84	2	1		
12/3 1100	32,600	50	11.9	105	106	7.4/7.5	—/1.04[c]		3.2/0.14		0/0.00	62/1.02		1.8/0.05			0.1				12	52	1	160		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR); as indicated.

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER AT LEWISTON (STA. 4a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/1 17[illegible]	185	4[illegible]	10.[illegible]	8[illegible]	108	7.3 / 7.8	— / 1.02[c]		2.1 / 0.09		0 / 0.00	61 / 1.00		2.0 / 0.06			0.0				8	91	1	2	Maximum 230.	USGS
2/8 1[illegible]	347	4[illegible]	11.1	[illegible]	111	7.3 / 7.8	— / 1.04[c]		3.2 / 0.14		0 / 0.00	56 / 0.92		2.[illegible] / 0.06			0.0				12	92	6	5[illegible]	Minimum 0.045-	
3/[illegible] 10[illegible]	31[illegible]	47	10.[illegible]	[illegible]	11[illegible]	7.3 / 7.8	— / 1.00[c]		2.8 / 0.12		0 / 0.0	54 / 0.8[illegible]		1.5 / 0.04			0.0				11	9[illegible]	[illegible]	10	Median 13.	
4/[illegible] 14[illegible]	1[illegible]8	5[illegible]	1[illegible].[illegible]	100	10[illegible]	8.0 / 8.1	— / 1.04[c]		2.5 / 0.11		0 / 0.00	60 / 0.98		2.2 / [illegible]			0.0				10	92	3	1		
5/1[illegible] 1415	186	5[illegible]	10.7	[illegible]	101	8.0 / 7.7	7.4 / 0.37	0.7 / 0.55	2.6 / 0.11	0.0 / 0.02	0 / 0.00	56 / .92	3.2 / 0.07	2.4 / 0.07	0.2 / 0.00	0.0 / 0.00	0.0	13	PO_4 0.00	64[f]	10	46	0	3.5		
6/7 11[illegible]	17[illegible]	5[illegible]	1[illegible].[illegible]	[illegible]	12[illegible]	7.4 / 8.0	— / 1.18[c]		2.6 / 0.11		0 / 0.00	73 / 1.19		2.2 / 0.06			0.2				[illegible]	5[illegible]	2	3		
7/12 1:5[illegible]	1[illegible]	[illegible]1	[illegible]	[illegible]7	[illegible]	8.1 / 8.[illegible]	— / 0.84[c]		2.7 / 0.12		0 / 0.00	55 / 0.90		1.6 / 0.05			0.0				12	4[illegible]	[illegible]	1		
8/1 2[illegible]	1[illegible]	[illegible]	[illegible].3	43	[illegible]	8.[illegible] / 8.1	— / 0.41[c]		2.9 / 0.13		0 / 0.00	55 / 0.90		3.2 / 0.09			0.0				12	4[illegible]	1	7		
9/8 1[illegible]	1[illegible]	5[illegible]	10.4	102	[illegible]7	7.[illegible] / 7.[illegible]	6.7 / 0.33	7.2 / 0.59	2.7 / 0.12	0.4 / 0.01	0 / 0.00	56 / 0.92	1.2 / 0.02	2.8 / .07	0.1 / 0.00	0.1 / .01	0.0	14	PO_4 0.00	63[f] 1[illegible]2	11	4[illegible]	[illegible]	[illegible]		
10/8 [illegible]	2[illegible]3	50	11.3	100	[illegible]7	7.6 / 7.7	— / 0.85[c]		2.4 / 0.10		0 / 0.00	58 / 0.95		2.2 / [illegible]			0.0				1[illegible]	4[illegible]	[illegible]	[illegible]		
11/5 [illegible]	2[illegible]5	48	11.[illegible]	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	— / [illegible][c]		2.3 / 0.10		0 / 0.00	56 / 0.92		2.4 / 0.07			0.0				1[illegible]	4[illegible]		1		
12/[illegible] [illegible]	[illegible]	4[illegible]	11.[illegible]	[illegible]	117	7.2 / 7.6	— / 1.08[c]		4.6 / 0.20		0 / 0.00	58 / 0.95		2.0 / 0.06			0.1				1[illegible]	[illegible]1	[illegible]	7		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-10

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

VAN DUZEN RIVER NEAR BRIDGEVILLE (STA. 5a)

Date and time sampled P.S.T 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/4 1235	158	44	11.6	96	159	7.3/8.0	—/1.48[c]		3.2/0.14		0/0.00	80/1.31		2.5/0.07			0.0				9	74	8	2	Maximum 620.	USGS
2/5 1620	205	46	11.7	98	146	7.2/8.0	—/1.36[c]		3.8/0.17		0/0.00	76/1.25		3.0/0.08			0.2				11	68	6	4	Minimum 0.06	
3/5 1735	5,30[illegible]	45	11.9	98	87	7.3/7.6	—/0.82[c]		3.9/0.17		0/0.00	40/0.66		1.0/0.03			0.0				17	41	8	300	Median 5.6	
4/2 1[illegible]	92[e]	51	10.8	96	101	7.5/7.8	—/1.04[c]		2.4/0.10		0/0.00	53/0.87		1.6/0.05			0.0				9	52	9	15		
5/8 1630	23[illegible]	59	9.6	94	13[illegible]	7.7/8.1	18/0.90	4.9/0.40	4.7/0.20	0.9/0.02	0/0.00	73/1.20	11/0.23	1.8/0.05	0.0/0.00	0.1/0.01	0.0	9.8	PO_4 0.00	87[f]	13	65	5	3		
6/5 1710	48[illegible]	67	9.3	100	163	8.1/8.3	—/1.50[c]		3.9/0.17		2/0.07	82/1.34		2.0/0.06			0.1		Tot. Alk. 86		10	75	4	2		
7/10 1725	2[illegible]	75	8.6	100	203	8.2/8.4	—/1.86[c]		6.1/0.27		1/0.03	107/1.75		3.6/0.10			0.1		Tot. Alk. 110		13	93	3	1		
8/6 1320	105	65	8.0	84	230	8.1/8.2	—/2.06[c]		7.7/0.33		0/0.00	110/1.80		4.8/0.14			0.1				14	103	13	20		
9/6 135[illegible]	12	67	9.8	105	239	8.2/8.2	31/1.55	7.4/0.61	7.5/0.33	0.9/0.02	0/0.00	129/2.11	15/0.31	4.8/0.14	0.4/0.01	0.1/0.01	0.0	9.9	PO_4 .40	141[f]	13	108	2	5		
1[illegible]/1[illegible] 1[illegible]3	5,4[illegible]	55	10.7	101	104	7.5/7.4	—/0.94[c]		2.4/0.13		0/0.00	51/0.84		2.0/0.06			0.0				12	47	5	350		
11/7 [illegible]	126	53	10.9	100	197	7.4/8.4	—/1.80[c]		5.2/0.23		4/0.13	100/1.64		4.6/0.13			0.0		Tot. Alk. 108		11	90	1	1		
12/4 1[illegible]	2,73[illegible]	50	11.8	104	106	7.1/7.7	—/0.94[c]		4.0/0.17		0/0.00	58/0.95		1.5/0.04			0.1				15	47	0	50		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

ALAMEDA CREEK NEAR NILES (STA. 73)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	a = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/10 1345	0.1	52	10.8	98	1470	8.2	12.55[c]		109 / 4.74		0 / 0.00	336 / 5.51		92 / 2.60			1.0			897[e]	27	628	352	4	Median 9.6	USGS
2/7 1045	1.5	56	11.2	107	1170	8.3	9.40[c]		86 / 3.74		0 / 0.00	328 / 5.38		91 / 2.57			1.0			714[e]	28	470	201	3	Max. 2400.	
3/15 1035	45	51	10.5	94	541	8.0	4.28[c]		31 / 1.35		0 / 0.00	202 / 3.31		32 / 0.90			0.3			330[e]	24	214	48	8	Min. 0.62	
4/6 1330	4.0	66	10.9	117	851	8.3	6.41[c]		60 / 2.61		0 / 0.00	268 / 4.39		68 / 1.92			0.7			517[e]	29	320	100	6		
5/4 1034	9.2	65	12.2	129	652	8.3	58 / 2.89	29 / 2.39	35 / 1.52	2.9 / 0.07	0 / 0.00	240 / 3.93	91 / 1.89	36 / 1.02	5.1 / 0.08	0.3 / 0.02	0.6	9.2		385[f]	22	264	67	3		
6/14 0814	7.0	61	10.5	106	599	8.0	4.80[c]		40 / 1.74		0 / 0.00	225 / 3.69		31 / 0.87			0.5			364[e]	27	240	56	2		
7/11 1104	15	68	12.5	136	635	8.2	3.60[c]		64 / 2.78		0 / 0.00	178 / 2.92		80 / 2.26			0.4			385	44	180	34	15		
8/9 1130	14	73	9.8	112	535	8.1	3.56[c]		49 / 2.13		0 / 0.00	194 / 3.18		52 / 1.47			0.3			325[e]	37	178	19	45		
9/6 1715	3.7	70	9.9	110	496	8.2	31 / 1.55	16 / 1.29	52 / 2.26	2.5 / 0.06	0 / 0.00	162 / 2.66	33 / 0.69	58 / 1.64	0.5 / 0.01	0.1 / 0.01	0.4	15	PO_4 0.55	297[g]	44	142	9	50		
10/1 1340	39	69	9.8	108	585	7.9	3.04[c]		69 / 3.00		0 / 0.00	146 / 2.39		87 / 2.45			0.5			355[e]	50	152	32	90		
11/7 1625	4.5	58	10.7	104	797	8.0	4.20[c]		84 / 3.65		0 / 0.00	193 / 3.16		116 / 3.27			0.4			485[e]	46	210	52	25		
12/5 1020	2.1	50	11.2	97	910	8.0	5.45[c]		90 / 3.92		0 / 0.00	253 / 4.15		114 / 3.22			0.4			555[e]	42	273	66	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. **f = 0.610**

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE B-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

ARROYO DEL VALLE NEAR LIVERMORE (STA. 71)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 0.98 Dissolved oxygen ppm	a = 0.98 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/10 1415	Dry - Not Sampled																									
2/7 1140	0.5	57	9.0	88	1,680	7.9	11.50[c]		163 / 7.09		0 / 0.00	491 / 8.05		216 / 6.09			2.9			1,035[e]	38	575	172	1		USGS
3/15 0814	39	48	10.0	87	440	8.1	3.94[c]		19 / 0.83		0 / 0.00	203 / 3.33		13 / 0.36			0.3			270[e]	17	197	31	2		
4/6 1200	9.4	65	9.0	97	515	8.3	4.51[c]		25 / 1.09		4 / 0.13	226 / 3.70		19 / 0.54			0.4		Total Alkalinity: 234	320[e]	19	226	34	3		
5/4 0945	3.5	64	10.9	115	613	8.2	56 / 2.79	31 / 2.57	28 / 1.22	2.5 / 0.06	0 / 0.00	278 / 4.56	69 / 1.44	24 / 0.68	0.0 / 0.00	0.0 / 0.00	0.5	16		364[f]	18	268	40	6		
6/14 0720	0.7	60	9.0	92	793	7.7	6.38[c]		56 / 2.44		0 / 0.00	334 / 5.47		46 / 1.30			0.8			490[e]	28	319	45	2		
7/11 1020	0.2	68	10.2	113	881	8.0	6.60[c]		72 / 3.13		0 / 0.00	360 / 5.90		56 / 1.58			0.9			540[e]	32	330	35	2		
8/9 1200	Ponded - Not Sampled																									
9/6 1640	Dry - Not Sampled																									
10/1 1035	Dry - Not Sampled																									
11/5 1340	Ponded - Not Sampled																									
12/5 1100	Ponded - Not Sampled																									

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.616

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE D-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (NO. 2)

CARQUINEZ STRAITS AT MARTINEZ (STA. 28a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										[illegible]
1/17 1200		48			22857															1[illegible]400						
2/19 1345					314															[illegible]04						
3/13 1305		52			372															[illegible]52						
4/18 1225					5510															[illegible]548						
5/16 1410		64			11360															7468						
6/20 1435		70			9614															6[illegible]						
7/17 1310		66			19494															14[illegible]52						
8/14 1230		70			18196															1[illegible]340						
9/12 1215		64			14782															1015[illegible]						
10/17 1020		60			737															43[illegible]						
11/14 1300		59			14118															11028						
12/20 1315		52			10374															6[illegible]72						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

COYOTE CREEK NEAR MADRONE (STA. 82)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 0.99 Dissolved oxygen ppm	a = 0.99 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/8 1430	Dry																									
2/5 1445	Dry																									
3/13 1250	52	51	10.4	94	288	7.9	2.30[c]		15 / 0.65		0 / 0.00	114 / 1.87		12 / 0.34			0.1			168[e]	22	115	22	175	Median 23	USGS
4/4 1450	82	54	12.8	120	282	8.1	2.26[c]		13 / 0.57		0 / 0.00	99 / 1.62		7.9 / 0.22			0.1			165[e]	20	113	32	55	Max. 620	
5/2 1107	107	57	11.6	113	280	8.2	26 / 1.30	11 / 0.90	13 / 0.57	24 / 0.06	0 / 0.00	108 / 1.77	31 / 0.65	10 / 0.28	4.5 / 0.07	0.2 / 0.01	0.1	12	PO_4 0.2 d; As 0.01	163[f]	20	110	21	15	Min. 2.3	
6/13 1549	103	63	11.9	124	325	8.2	2.75[c]		15 / 0.65		0 / 0.00	136 / 2.23		11 / 0.31			0.0			186[e]	19	137	25	10		
7/12 1645	105	70	10.2	115	380	8.3	3.38[c]		16 / 0.70		0 / 0.00	167 / 2.74		12 / 0.34			0.1			222[e]	17	169	32	10		
8/8 1000	Dry																									
9/4 1500	Dry																									
10/1 1510	Dry																									
11/5 1515	16	62	11.3	117	622	8.2	5.66[c]		31 / 1.35		8 / 0.27	283 / 4.64		10 / 0.28			0.2		Total Alkalinity: 299	363[e]	19	283	38	5		
12/3 1030	1.2	53	7.9	73	748	7.7	6.78[c]		39 / 1.70		6 / 0.20	349 / 5.72		33 / 0.93			0.2		Total Alkalinity: 362	437[e]	20	339	42	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.584

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

LOS GATOS CREEK AT LOS GATOS (STA. 74)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 0.98 Dissolved oxygen ppm	a = 0.98 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/9 1550	0.7	52	10.7	98	793	7.8	—/7.96[c]		10/0.44		5/0.17	306/5.02		20/0.56			0.2		Total Alkalinity: 316	484[e]	5	398	139	3	Median 6.2	USGS
2/6 1520	2.8	53	11.6	108	677	8.4	—/6.42[c]		28/1.22		3/0.10	239/3.92		20/0.56			0.1		Total Alkalinity: 245	413[e]	16	321	120	3	Max. 620.	
3/14 1615	14	47	11.1	96	271	7.8	—/2.36[c]		9.9/0.43		0/0.00	102/1.67		6.5/0.18			0.1			166[e]	15	118	34	170	Min. 0.62	
4/6 1035	15	52	10.0	92	282	7.8	—/2.44[c]		10/0.44		0/0.00	108/1.77		7.5/0.21			0.0			172[e]	15	122	33	35		
5/4 0755	70	46	11.8	100	273	7.3	28/1.40	11/0.94	11/0.48	1.9/0.05	0/0.00	100/1.64	25/0.52	27/0.76	1.3/0.02	0.3/0.02	0.0	14	PO_4 0.20	168[f]	17	117	35	20		
6/12 1358	88	55	11.1	106	279	7.2	—/2.36[c]		10/0.44		0/0.00	106/1.74		9.0/0.25			0.0			170[e]	16	118	31	10		
7/13 0930	150	65	10.2	110	318	7.5	—/2.82[c]		12/0.52		0/0.00	128/2.10		9.5/0.27			0.1			193[e]	16	141	36	5		
8/8 2000	4.2	70	8.0	91	465	7.4	—/4.20[c]		15/0.65		0/0.00	200/3.28		10/0.28			0.1			288[e]	13	210	46	10		
9/6 1605	6.2	70	8.2	93	637	8.2	76/3.79	30/2.47	19/0.83	3.2/0.08	0/0.00	287/4.70	101/2.10	14/0.39			0.1		PO_4 0.10	397[g]	12	313	78	50		
10/3 1540	0.6	65	8.7	94	960	8.0	—/9.78[c]		36/1.57		0/0.00	388/6.36		25/0.71			0.3			585[e]	14	489	171	45		
11/7 1445	3.0	60	8.9	90	195	7.4	—/1.66[c]		7.5/0.33		0/0.00	70/1.15		5.8/0.16			0.0			118[e]	17	83	26	400		
12/4 2000	37	53	9.9	92	270	7.6	—/2.34[c]		9.3/0.40		0/0.00	114/1.87		6.8/0.19			0.1			165[e]	15	117	24	200		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.610

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-11
ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

NAPA RIVER NEAR ST. HELENA (STA. 72)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 0.99 Dissolved oxygen ppm	a = 0.99 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1045	8.2	55	5.9	56	326	7.0	2.16[c]		28 / 1.22		0 / 0.00	115 / 1.88		30 / 0.85			0.7			217[e]	36	108	14	4	Median 230	USGS
2/13 1110	6,420	52	9.5	86	88	6.9	0.68[c]		4.7 / 0.20		0 / 0.00	44 / 0.72		3.0 / 0.08			0.1			59[e]	23	34	0	25	Max. >7000.	
3/6 0940	1,170	51	10.0	90	99	7.3	0.66[c]		10 / 0.44		0 / 0.00	37 / 0.61		5.2 / 0.15			0.1			66[e]	40	33	3	115	Min. 6.2	
4/10 1045	36	61	11.2	114	257	7.4	2.00[c]		17 / 0.74		0 / 0.00	86 / 1.41		20 / 0.56			0.3			170[e]	27	100	29	10		
5/8 0930	12	62	9.8	101	321	7.2	29 / 1.45	11 / 0.89	20 / 0.87	3.3 / 0.08	0 / 0.00	130 / 2.13	20 / 0.42	18 / 0.51	12 / 0.19	0.3 / 0.02	0.5	40	PO_4 0.75 d; As 0.01; ABS 0.1	218[f]	26	117	10	10		
6/7 1315	3.6	76	11.6	140	375	7.2	2.94[c]		19 / 0.83		0 / 0.00	156 / 2.56		17 / 0.48			0.4			248[e]	22	147	19	3		
7/11 0807	1.4	64	8.5	90	394	7.1	3.32[c]		18 / 0.78		0 / 0.00	180 / 2.95		13 / 0.37			0.5			260[e]	19	166	18	2		
8/9 1334	1.3	66	11.2	121	399	7.5	3.37[c]		19 / 0.83		0 / 0.00	196 / 3.21		18 / 0.51			0.4			264[e]	20	168	7	1		
9/13 1300	0.1	65	5.4	58	400	6.9	36 / 1.80	19 / 1.59	19 / 0.83	2.7 / 0.07	0 / 0.00	206 / 3.38	23 / 0.48	14 / 0.39	4.1 / 0.07	0.2 / 0.01	0.2	29	PO_4 0.10	231[g]	19	170	1	5		
10/10 1605	1.3	65	4.2	45	395	7.0	3.38[c]		18 / 0.78		0 / 0.00	194 / 3.18		12 / 0.34			0.1			261[e]	19	169	10	45		
11/15 1700	11	57	12.6	122	319	7.3	1.86[c]		30 / 1.30		0 / 0.00	120 / 1.97		30 / 0.85			0.9			211[e]	41	93	0	3		
12/12 1230	15	52	8.6	78	275	7.0	1.87[c]		22 / 0.96		0 / 0.00	113 / 1.85		18 / 0.51			0.5			182[e]	34	93	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.667

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-11

ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (2)

SACRAMENTO RIVER NEAR MALLARD SLOUGH (STA. 15c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							equivalents per million																			
[illegible]	Tidal																									USBR
[illegible]		[illegible]			[illegible]				[illegible]					1718						3500	69					
[illegible]					[illegible]				20					43						222	35					
[illegible]		[illegible]			[illegible]				20					31						192	34					
[illegible]					177				14					17						1[illegible]	34					
[illegible]		[illegible]			182				16					19						130	38					
[illegible]		[illegible]			601				69					135						334	49					
[illegible]		[illegible]			4505				763					1842						2900	74					
[illegible]		[illegible]			[illegible]11				573					1193						2704	64					
[illegible]		[illegible]			3515				552					1019						2144	68					
[illegible]		[illegible]			249				24					40						180	49					
[illegible]		[illegible]			[illegible]				69					181						416	48					
[illegible]		[illegible]			249									27						130						

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

CARMEL RIVER AT ROBLES DEL RIO (STA. 83)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 0.99 Dissolved oxygen ppm	a = 0.99 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/9 1200	Dry																									
2/6 1140	1.2	54	11.8	110	991	7.5	7.32[c]		72 / 3.13		0 / 0.00	222 / 3.64		81 / 2.29			0.1			614[e]	30	366	184	2	Median 21	USGS
3/14 0940	222	46	10.9	92	225	7.8	1.74[c]		11 / 0.48		0 / 0.00	86 / 1.41		11 / 0.31			0.0			140[e]	22	87	16	2	Max. 130.	
4/5 1125	79	57	10.0	97	264	8.3	1.99[c]		13 / 0.57		0 / 0.00	98 / 1.61		13 / 0.37			0.0			164[e]	22	99	19	5	Min. 0.13	
5/3 1107	28	62	11.9	123	338	8.3	33 / 1.65	11 / 0.87	20 / 0.87	2.5 / 0.06	0 / 0.00	118 / 1.93	45 / 0.94	18 / 0.51	0.0 / 0.00	0.3 / 0.02	0.0	25		213[f]	25	126	29	1		
6/13 0825	3.5	59	10.0	100	497	7.3	3.54[c]		36 / 1.57		0 / 0.00	156 / 2.56		31 / 0.87			0.0			308[e]	31	177	49	1		
7/12 0910	1.6	60	7.6	77	622	7.3	4.44[c]		48 / 2.09		0 / 0.00	185 / 3.03		38 / 1.07			0.1			387[e]	32	222	70	2		
8/8 1550	Dry																									
9/6 1000	Dry																									
10/3 0900	Dry																									
11/7 0940	2.8	57	10.8	105	454	7.4	3.26[c]		33 / 1.44		0 / 0.00	160 / 2.62		24 / 0.68			0.0			283[e]	31	163	32	1		
12/4 1440	4.8	56	11.8	113	540	7.8	3.80[c]		41 / 1.78		0 / 0.00	173 / 2.84		36 / 1.02			0.0			335[e]	32	190	48	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.620

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (NO. 3)
CUYAMA RIVER NEAR GAREY (STA. 44a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-2																										
1-3 1330	Dry No flow																									
2-3 1450	Dry No flow																									
3-5 1445	5 est.	2	13.2	134	1752	7.9[a]	146 / 7.29	91 / 7.51	120 / 5.22	5.2 / 0.13	0 / 0.00	206 / 3.38	700 / 14.58	85 / 2.40	3.0 / 0.05	0.9 / 0.05	0.30	14		1448	26	780	571	<25	0.2 0.2	DWR
4-4 1500	1/2 est.	74	14.0	161	1890	8.4[a]			145 / 6.31		0 / 0.00	224 / 3.68		95 / 2.68			0.32				28	818	634	<25	23 0.2	
5-1 1300	250 est.	56	12.8	140	1169	8.0[a]	133 / 6.64	44 / 3.62	62 / 2.70	4.3 / 0.11	7.2 / 0.24	140 / 2.30	452 / 9.41	32 / 0.90	1.3 / 0.02	0.7 / 0.04	0.23	20	PO_4 = 0.20 As = 0.00	875	21	513	386	<25	23 23	
6-7 1230	250 est.	72	[illegible]	126	1046	7.9[a]			55 / 2.39		0 / 0.00	173 / 2.84		32 / 0.90			0.21				21	451	309	<25	2.3 2.3	
7-10 1025	275 est.	74	10.0	116	1116	8.1[a]			63 / 2.74		0 / 0.00	195 / 3.20		34 / 0.96			0.21				22	484	324	<25	62 23	
8-7 1530	49	80	10.8	134	1357	8.0[a]			70 / 3.05		0 / 0.00	229 / 3.76		42 / 1.18			0.30				21	585	397	<25	2.3 0.6	
9-11 0740	1.2 est.	64	5.2	54	1749	7.3[a]	179 / 8.93	85 / 6.95	116 / 5.05	4.7 / 0.12	0 / 0.00	353 / 5.78	623 / 12.98	73 / 2.06	0.4 / 0.00	1.0 / 0.05	0.34	23	PO_4 = 0.05	1355	24	794	505	<25	2.3 <0.45	
10-2 0750	Dry No flow																									
11-14 0725	Dry No flow																									
12-4 0750	Dry No flow																									

a Field pH.
b Laboratory pH
c Sum of calcium and magnesium in epm.
d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.
e Derived from conductivity vs TDS curves.
f Determined by addition of analyzed constituents.
g Gravimetric determination.
h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

NACIMIENTO RIVER NEAR SAN MIGUEL (STA. 43B)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH [a]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1810	Dry No Flow																									
2/6 1100	No surface inflow to pond.																									
3/6 1010	3 (est.)	54	6.8	64	479	7.4	49 / 2.44	22 / 1.84	15 / 0.65	4.6 / 0.12	0 / 0.00	200 / 3.28	55 / 1.15	15 / 0.42	4.7 / 0.08	0.30 / 0.01	0.04	31		289[g]	13	214	50	<25	Median 3.6	DWR
4/4 1050	Trickle	60	6.8	69	446	7.4			15 / 0.65		0 / 0.00	193 / 3.16		14 / 0.39			0.06			278[e]	14	207	49	<25	Max. 62.	
5/2 1015	380	58	12.8	127	273	8.2	24 / 1.20	15 / 1.22	9 / 0.39	1.2 / 0.03	0 / 0.00	120 / 1.96	30 / 0.62	6 / 0.17	2.1 / 0.03	0.10 / 0.00	0.09	12	PO_4 0.1 As = 0.00	157[g]	14	121	23	<25	Min. <0.45	
6/7 0915	468	54	10.0	94	257	7.5			9 / 0.39		0 / 0.00	112 / 1.84		6 / 0.17			0.08			160[e]	15	114	22	<25		
7/10 1555	551	66	12.0	130	253	8.2			9 / 0.39		0 / 0.00	105 / 1.72		4 / 0.11			0.09			158[e]	16	103	17	<25		
8/7 0845	574	54	8.8	83	234	7.2	/ 2.04[c]		7.7 / 0.33		0 / 0.00	108 / 1.77		6.0 / 0.17			0.0			146[e]	14	102	13	2		USGS
9/5 1230	530	60	12.6	128	232	8.0	23 / 1.15	12 / 0.95	7.3 / 0.32	1.2 / 0.03	0 / 0.00	112 / 1.84	23 / 0.48	6.0 / 0.17	1.2 / 0.02	0.2 / 0.01	0.1	14	PO_4 0.20	143[f]	13	105	13	5		
10/2 1345	500 (est.)	67	13.4	147	228	8.2	/ 2.21[c]		8.1 / 0.35		0 / 0.00	123 / 2.02		6.4 / 0.18			0.2			142[e]	14	110	9	15		
11/6 1300	500 (est.)	65	10.4	112	261	7.9	/ 2.32[c]		8.6 / 0.37		0 / 0.00	132 / 2.16		5.8 / 0.16			0.0			163[e]	14	116	8	3		
12/3 1800	200 (est.)	60	9.8	100	272	8.0	/ 2.40[c]		9.4 / 0.41		0 / 0.00	130 / 2.13		6.9 / 0.19			0.0			170[e]	15	120	13	2		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.625

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

PAJARO RIVER AT CHITTENDEN (STA. 77)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen (a = 1.00) ppm	Dissolved oxygen (a = 1.00) %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1600	0.7	58	9.8	95	2,090	8.4	9.32[c]		288 / 12.53		18 / 0.60	524 / 8.59		382 / 10.78			1.5		Total Alkalinity: 560	1,319[e]	57	466	7	4	Median 22	USGS
2/5 1630	0.7	57	10.4	100	2,150	8.2	10.50[c]		292 / 12.70		6 / 0.20	560 / 9.18		345 / 9.73			2.2		Total Alkalinity: 573	1,357[e]	55	525	55	3	Max. >7000	
3/13 1545	185	56	9.0	86	405	7.8	3.14[c]		24 / 1.04		0 / 0.00	152 / 2.49		29 / 0.82			0.2			255[e]	25	157	32	35	Min. 1.3	
4/5 0950	10	55	8.6	81	1,010	8.1	6.28[c]		98 / 4.26		0 / 0.00	328 / 5.38		108 / 3.05			0.9			640[e]	40	314	45	15		
5/3 0810	6.7	58	10.5	102	1,600	8.4	84 / 4.19	78 / 6.41	155 / 6.74	5.0 / 0.13	0 / 0.00	464 / 7.60	253 / 5.27	164 / 4.63	3.0 / 0.05	0.4 / 0.02	1.2	9.7	PO_4 0.25	982[f]	39	530	150	4		
6/13 1320	2.9	61	10.9	111	2,110	8.1	9.80[c]		292 / 12.70		0 / 0.00	538 / 8.82		351 / 9.90			2.0			1,330[e]	56	490	49	5		
7/12 1415	0.4	63	10.9	112	2,150	8.2	9.80[c]		306 / 13.31		0 / 0.00	558 / 9.15		373 / 10.52			1.9			1,360	58	490	32	4		
8/8 1220	0.6	72	8.9	101	1,900	8.0	10.09[c]		250 / 10.88		9 / 0.30	573 / 9.39		247 / 6.97			1.4		Total Alkalinity: 592	1,200[e]	52	504	19	5		
9/5 0820	0.5	61	6.8	69	2,170	8.0	89 / 4.44	61 / 4.99	315 / 13.70	5.8 / 0.15	0 / 0.00	584 / 9.57	122 / 2.54	379 / 10.69	3.5 / 0.06	0.1 / 0.01	2.4	26	PO_4 0.45 d; As 0.01	1,280[g]	59	472	0	10		
10/1 1700	0.5	67	8.0	86	2,060	8.2	9.58		288 / 12.53		0 / 0.00	584 / 9.57		375 / 10.58			0.1			1,300[e]	57	479	0	15		
11/5 1725	1.0	59	7.6	75	1,830	8.2	8.32[c]		258 / 11.22		12 / 0.40	520 / 8.52		289 / 8.15			1.6		Total Alkalinity: 544	1,155[e]	57	416	0	2		
12/3 1245	0.7	55	9.1	86	2,060	7.5	9.50		284 / 12.35		12 / 0.40	578 / 9.47		332 / 9.37			1.8		Total Alkalinity: 602	1,300[e]	57	475	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves f = 0.631

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SALINAS RIVER NEAR BRADLEY (STA. 43C)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1645	9.5	56	14.0	136	930	8.3			66 / 2.87		13 / 0.44	222 / 3.64		50 / 1.41			0.25				29	349	145	<25	Median 5.6	DWR
2/6 0840	19	50	8.0	72	766	7.5	71 / 3.54	28 / 2.40	53 / 2.30	2.0 / 0.05	0 / 0.00	285 / 4.68	156 / 3.24	37 / 1.04	0.4 / 0.00	0.40 / 0.02	0.19	26		482[g]	28	297	63	<25	Max. 62.	
3/6 0730	570	50	8.4	75	634	8.1	56 / 2.79	22 / 1.83	45 / 1.96	2.4 / 0.06	0 / 0.00	207 / 3.40	112 / 2.33	27 / 0.76	4.2 / 0.07	0.50 / 0.03	0.12	25		406[g]	30	231	61	280	Min. <0.45	
4/4 0850	230	56	10.0	97	663	8.1			45 / 1.95		0 / 0.00	224 / 3.68		32 / 0.90			0.14			415[e]	27	260	76	<25		
5/2 0730	400	58	10.0	99	358	8.0	30 / 1.50	18 / 1.46	16 / 0.70	1.5 / 0.04	0 / 0.00	139 / 2.28	48 / 0.99	13 / 0.37	1.6 / 0.03	0.20 / 0.01	0.10	15	PO_4 0.1; As 0.00	216[g]	19	148	34	40		
6/7 0705	474	56	9.6	93	292	7.8			15 / 0.65		0 / 0.00	124 / 2.04		7 / 0.20			0.08			185[e]	21	121	19	<25		
7/10 1415	382	76	10.0	121	282	8.0			12 / 0.52		0 / 0.00	118 / 1.94		6 / 0.17			0.09			180[e]	18	118	20	<25		
8/7 0935	555	60	10.8	110	251	7.7	2.16[c]		10 / 0.44		0 / 0.00	116 / 1.90		1.4 / 0.04			0.0			160[e]	17	108	13	10		USGS
9/5 1010	540	61	9.9	102		7.8	Sample Destroyed																			
10/2 1215	470	68	9.4	104	270	8.1	2.32[c]		11 / 0.48		0 / 0.00	119 / 1.95		13 / 0.37			0.5			172[e]	17	116	18	15		
11/6 1200	244	62	9.7	101	300	7.9	2.60[c]		12 / 0.52		0 / 0.00	143 / 2.34		8.2 / 0.23			0.1			191[e]	17	130	13	3		
12/3 1600	260	60	9.9	100	314	7.8	2.67[c]		13 / 0.57		0 / 0.00	145 / 2.38		9.1 / 0.26			0.1			200[e]	18	133	14	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.625

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SALINAS RIVER AT PASO ROBLES (STA. 43A)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1600	Dry No Flow																									
2/6 1150	Dry No Flow																									
3/5 1730	200	56	8.8	85	645	7.8	68 / 3.39	30 / 2.47	27 / 1.17	2.0 / 0.05	0 / 0.00	226 / 3.70	112 / 2.33	26 / 0.73	15 / 0.24	0.40 / 0.02	0.06	24		424[g]	17	293	108	<25	Median 9.6	DWR
4/4 1200	105	66	10.0	109	686	7.3			32 / 1.39		0 / 0.00	244 / 4.00		30 / 0.85			0.08			458[e]	18	313	113	<25	Max. 700.	
5/2 1100	10	78	7.6	94	982	7.6	98 / 4.89	39 / 3.21	56 / 2.44	2.3 / 0.06	0 / 0.00	295 / 4.84	188 / 3.91	64 / 1.80	1.9 / 0.03	0.50 / 0.026	0.15	28	PO_4 0.4 As= 0.00	650[g]	23	405	163	<25	Min. 0.6	
6/7 1000	Dry - Not Sampled																									
7/10 1630	Dry - Not Sampled																									
8/7 1215	Dry - Not Sampled																									
9/5 1400	Dry - Not Sampled																									
10/2 1530	Dry - Not Sampled																									
11/6 1430	Dry - Not Sampled																									
12/4 0900	Dry - Not Sampled																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. £ = 0.667

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SALINAS RIVER NEAR SPRECKLES (STA. 43)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	a = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/9 1115	2.0	53	0.8	7	1,090	7.3	5.36[c]		112 / 4.87		0 / 0.00	278 / 4.56		146 / 4.12			0.3			640[e]	48	268	40	20	Median 230	USGS
2/6 1045	1.1	56	1.8	17	1,060	7.0	4.65[c]		121 / 5.26		0 / 0.00	217 / 3.56		130 / 3.67		0.6 / 0.03	0.3			622[e]	53	232	54	2	Max. >7000.	
3/14 0845	450	48	9.9	85	510	8.2	4.10[c]		30 / 1.30		0 / 0.00	171 / 2.80		21 / 0.59			0.1			300[e]	24	205	65	80	Min. 2.3	
4/5 1050	6.5	65	9.8	103	805	8.2	5.91[c]		59 / 2.57		0 / 0.00	278 / 4.56		55 / 1.55			0.1			475[e]	30	296	68	15		
5/3 1000	2.0	71	16.6	186	1,320	8.4	62 / 3.09	51 / 4.17	140 / 6.09	21 / 0.54	0 / 0.00	375 / 6.15	150 / 3.12	131 / 3.70	26 / 0.42	0.6 / 0.03	0.5	30	PO_4 19 2:1 ABS	797[f]	44	363	55	9		
6/13 0920	0.8	65	11.5	121	1,450	7.5	7.84[c]		168 / 7.31		0 / 0.00	312 / 5.11		126 / 3.55			0.5			860[e]	48	392	136	2		
7/12 0950	1.0	64	14.9	155	1,390	7.7	7.04[c]		166 / 7.22		0 / 0.00	288 / 4.72		132 / 3.72			0.7			820[e]	51	352	116	20		
8/8 1500	1.5 (est.)	81	13.9	172	1,080	7.8	4.40[c]		150 / 6.52		0 / 0.00	219 / 3.59		148 / 4.18			0.5			638[e]	60	220	40	3		
9/6 1045	0.5	66	9.3	99	1,380	7.4	38 / 1.90	64 / 5.26	164 / 7.13	11 / 0.28	0 / 0.00	322 / 5.28	207 / 4.31	142 / 4.01	27 / 0.44	1.0 / 0.05	0.7	49	PO_4 2.8 ABS 1.7	921[g]	49	358	94	30		
10/3 1040	0.6	60	10.8	108	1,110	7.3	4.63[c]		140 / 6.09		0 / 0.00	302 / 4.95		150 / 4.23			0.9			655[e]	57	232	0	20		
11/7 1050	3.0	57	6.3	60	1,530	7.4	10.16[c]		135 / 5.87		0 / 0.00	700 / 11.47		35 / 0.99			0.2			903[e]	37	508	0	5		
12/4 1530	5.0	61	2.0	20	1,500	7.4	9.92[c]		121 / 5.26		0 / 0.00	675 / 11.06		143 / 4.03			0.3			885[e]	35	496	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. **f = 0.587**

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-12
ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SAN ANTONIO RIVER NEAR PLEYTO (STA. 43D)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1715	2 (est.)	56	11.2	109	549	7.4			30 / 1.31		0 / 0.00	204 / 3.34		22 / 0.62			0.05			366[e]	23	223	56	<25	Median 4.8	DWR
2/6 0930	16	50	9.6	86	463	7.5	53 / 2.64	14 / 1.18	20 / 0.87	1.1 / 0.03	0 / 0.00	185 / 3.04	76 / 1.59	14 / 0.39	1.0 / 0.01	0.30 / 0.01	0.04	29		294[g]	19	191	39	<25	Max. 240.	
3/6 1000	880	50	10.0	90	294	7.8	35 / 1.75	10 / 0.83	10 / 0.43	1.4 / 0.04	0 / 0.00	115 / 1.88	46 / 0.96	5 / 0.14	2.0 / 0.03	0.30 / 0.01<	0.03	23		190[g]	14	129	35	400	Min. 2.3	
4/4 0945	98	56	10.0	97	401	7.7	50 / 2.50	13 / 1.07	16 / 0.70	1.4 / 0.04	0 / 0.00	159 / 2.60	66 / 1.37	11 / 0.31	1.5 / 0.02	0.30 / 0.02	0.03	28		265[g]	16	179	49	<25		
5/2 0845	32	64	9.2	98	440	7.9	52 / 2.59	15 / 1.27	17 / 0.74	1.4 / 0.04	0 / 0.00	171 / 2.80	71 / 1.47	10 / 0.28	1.0 / 0.016	0.30 / 0.02	0.03	32	PO_4 0.2 As = 0.00	283[g]	16	193	53	<25		
6/7 0740	6	64	10.0	106	459	7.5			21 / 0.91		0 / 0.00	177 / 2.90		13 / 0.37			0.05			306[e]	19	198	53	<25		
7/10 1515	Dry - Not Sampled																									
8/7 1025	Dry - Not Sampled																									
9/5 1150	Dry - Not Sampled																									
10/2 1315	Dry - Not Sampled																									
11/6 1250	Ponded - Not Sampled																									
12/3 1645	0.3	61	9.6	99	488	7.5	4.02[c]		30 / 1.30		0 / 0.00	204 / 3.34		19 / 0.54			0.0			325[e]	24	201	34	2		USGS

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves $f = 0.667$

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SAN BENITO RIVER NEAR BEAR VALLEY FIRE STATION (STA. 77A)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 0.97 Dissolved oxygen ppm	a = 0.97 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1720	0.2	53	9.7	92	2,160	8.2	13.32[c]		278 / 12.09		22 / 0.73	456 / 7.47		197 / 5.56			1.8		Total Alkalinity: 500	1,400[e]	48	666	256	5	Median 6.2	USGS
2/5 1745	1.0	55	9.4	91	2,240	8.2	14.30[c]		278 / 12.09		12 / 0.40	541 / 8.87		192 / 5.42			2.1		Total Alkalinity: 565	1,452[e]	46	715	252	2	Max. 620	
3/13 1740	25	57	8.6	86	1,250	8.4	9.52[c]		115 / 5.00		29 / 0.97	382 / 6.26	250 / 5.20	67 / 1.89			0.8		Total Alkalinity: 440	810[e]	38	476	116	300	Min. 0.62	
4/5 0830	14	54	11.5	110	1,260	8.4	10.10[c]		106 / 4.61		28 / 0.93	434 / 7.11		69 / 1.95			0.9		Total Alkalinity: 490	820[e]	31	505	103	5		
5/2 1510	85	77	10.8	134	1,670	8.4	42 / 2.10	108 / 8.90	190 / 8.26	3.2 / 0.08	35 / 1.17	440 / 7.21	356 / 7.41	118 / 3.33	0.0 / 0.00	0.2 / 0.01	1.5	8.3	Total Alkalinity: 512	1,080[f]	43	550	130	2		
6/13 1012	88	65	11.3	123	812	8.4	7.50[c]		50 / 2.18		16 / 0.53	394 / 6.46		28 / 0.79			0.5		Total Alkalinity: 426	530[e]	23	375	26	6		
7/12 1208	11	76	10.1	124	1,300	8.5	9.92[c]		130 / 5.66		38 / 1.27	460 / 7.54		69 / 1.95			1.3		Total Alkalinity: 538	845[e]	36	496	55	2		
8/8 0840	0.4	63	10.0	107	1,930	8.0	11.43[c]		248 / 10.79		18 / 0.60	500 / 8.20		164 / 4.63			1.7		Total Alkalinity: 536	1,252[e]	49	572	132	5		
9/4 1750	0.2	73	8.8	105	2,090	8.0	56 / 2.79	118 / 9.71	280 / 12.18	4.8 / 0.12	29 / 0.97	501 / 8.21	485 / 10.10	178 / 5.02	2.2 / 0.04	0.4 / 0.02	2.1	13	PO_4 0.10 Total Alkalinity: 559	1,420[g]	49	625	167	4		
10/2 1005	0.2	63	9.2	98	2,120	7.9	12.94[c]		274 / 11.92		0 / 0.00	554 / 9.08		260 / 7.33			1.7			1,375[e]	48	647	193	5		
11/6 0915	0.1	56	10.9	107	2,180	8.2	13.64[c]		270 / 11.74		18 / 0.60	564 / 9.24		186 / 5.25			2.0		Total Alkalinity: 600	1,413[e]	46	682	190	2		
12/3 1415	1.0	65	12.0	131	1,860	8.2	12.00[c]		224 / 9.74		35 / 1.17	482 / 7.90		143 / 4.03			1.6		Total Alkalinity: 554	1,208[e]	45	600	146	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.648

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SAN LORENZO RIVER AT BIG TREES (STA. 75)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	a = 0.99 Dissolved oxygen ppm	a = 0.99 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/9 1500	17	55	12.9	121	420	8.4	3.16[c]		28 / 1.22		2 / 0.07	146 / 2.39		31 / 0.87			0.1		Total Alkalinity: 150	255[e]	28	158	35	10	Median 6.2	USGS
2/6 1420	20	53	13.2	122	421	8.4	3.08[c]		28 / 1.22		0 / 0.00	141 / 2.31		30 / 0.85			0.1			256[e]	28	154	38	2	Max. 230.	
3/14 1415	192	48	10.8	94	334	7.5	2.58[c]		18 / 0.78		0 / 0.00	102 / 1.67		16 / 0.45			0.1			203[e]	23	129	45	4	Min. 2.3	
4/5 1625	83	57	9.5	94	371	7.8	2.80[c]		20 / 0.87		0 / 0.00	120 / 1.97		19 / 0.54			0.0			226[e]	24	140	42	4		
5/3 1605	42	66	11.2	121	387	8.1	43 / 2.15	9.5 / 0.78	24 / 1.04	2.2 / 0.06	0 / 0.00	131 / 2.15	53 / 1.10	22 / 0.62	0.0 / 0.00	0.2 / 0.01	0.0	25	PO_4 0.40	244[f]	26	146	39	8		
6/12 1515	29	66	10.5	113	381	7.6	2.78[c]		23 / 1.00		0 / 0.00	137 / 2.25		25 / 0.71			0.0			232[e]	26	139	27	1		
7/11 1458	20	62	10.3	106	378	8.2	2.78[c]		24 / 1.04		0 / 0.00	136 / 2.23		25 / 0.71			0.0			230[e]	27	139	27	2		
8/8 1840	13	70	8.1	92	370	7.2	2.64[c]		22 / 0.96		0 / 0.00	138 / 2.26		23 / 0.65			0.0			225[e]	27	132	19	5		
9/6 1450	12	68	9.4	104	358	8.2	40 / 2.00	8.0 / 0.66	22 / 0.96	1.7 / 0.04	0 / 0.00	136 / 2.23	37 / 0.77	24 / 0.68	0.9 / 0.01	0.2 / 0.01	0.1	29	PO_4 0.75	226[g]	26	133	21	4		
10/3 1400	17	62	9.7	100	382	7.9	2.72[c]		27 / 1.17		0 / 0.00	141 / 2.31		28 / 0.79			0.4			232[e]	30	136	20	4		
11/7 1320	27	56	11.4	109	399	7.8	2.96[c]		25 / 1.09		0 / 0.00	144 / 2.36		24 / 0.68			0.1			242[e]	27	148	30	1		
12/4 1810	27	51	9.7	87	382	7.6	2.70[c]		28 / 1.22		0 / 0.00	139 / 2.28		25 / 0.71			0.0			232[e]	31	135	21	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.608

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (NO. 3)

SANTA YNEZ RIVER AT CACHUMA RESERVOIR (STA. 44b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-8 1245	28 feet to spill	60	10.8	107	830	8.1[a]			44 / 1.91		0 / 0.00	215 / 3.52		16 / 0.45			0.39				21	358	182	<25	<0.45 <0.45	DWR
2-5 1450	28 feet to spill	58	9.6	93	818	8.1[a]			43 / 1.87		0 / 0.00	2.5 / 3.52		17 / 0.48			0.40				21	346	170	<25	<0.45 <0.45	
3-5 1145	100 est.	56	8.4	80	697	7.6[a]	63 / 3.14	34 / 2.76	33 / 1.44	3.7 / 0.09	0 / 0.00	178 / 2.92	142 / 4.01	15 / 0.42	2.4 / 0.04	0.6 / 0.03	0.34	5		478	19	295	149	<25	0.6 2.3	
4-3 1810	Full 100 est.	56	12.4	118	708	8.0[a]			37 / 1.61		0 / 0.00	195 / 3.20		14 / 0.39			0.32				21	311	151	<25	<0.45 <0.45	
5-1 1000	Full 15 est.	64	10.4	108	743	7.5[a]	68 / 3.39	37 / 3.01	35 / 1.52	3.4 / 0.09	0 / 0.00	196 / 3.22	203 / 4.22	16 / 0.45	1.0 / 0.01	0.45 / 0.02	0.33	8	PO_4 = 0.24	491	16	320	159	<25	0.6 <0.45	
6-6 1530	Full 10 est.	70	12.4	138	736	7.9[a]			35 / 1.52		12 / 0.40	176 / 2.88		14 / 0.39			0.35				19	324	160	<25	<0.45 0.6	
7-10 0830	1.8 to spill	72	8.8	100	764	8.1[a]			37 / 1.61		0 / 0.00	194 / 3.18		13 / 0.37			0.34				20	329	170	<25	<0.45 <0.45	
8-6 1350	2.9 to spill	74	8.8	101	804	8.1[a]			40 / 1.74		0 / 0.00	198 / 3.24		19 / 0.54			0.38				21	331	169	<25	<0.45 <0.45	
9-10 1500	5 feet to spill	78	8.0	96	762	7.7[a]	71 / 3.54	39 / 3.20	39 / 1.70	3.6 / 0.09	0 / 0.00	205 / 3.36	224 / 4.66	15 / 0.42	0.5 / 0.42	0.6 / 0.03	0.35	4	PO_4 = 0.05	521	20	337	169	<25	<0.45 <0.45	
10-1 1505	4.85 to spill	74	8.8	102	784	8.2[a]			41 / 1.78		0 / 0.00	198 / 3.24		17 / 0.48			0.39				21	335	173	<25	<0.45 <0.45	
11-14 0850	5.75 to spill	64	8.4	88	788	7.5[a]			41 / 1.78		0 / 0.00	206 / 3.38		14 / 0.39			0.35				21	343	174	<25	2.3 2.3	
12-5 0930	6.15 to spill	60	7.6	76	790	7.6[a]			37 / 1.61		0 / 0.00	205 / 3.36		15 / 0.42			0.31				19	340	172	<25	0.46 0.6	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-0-B 6-61 200 SPO

TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (NO. 3)
SANTA YNEZ RIVER NEAR SOLVANG (45a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-2																										
1-8 1330	Dry No flow																									
2-5 1540	4 est.	64	10.0	101	1301	7.7[a]	125 / 6.24	72 / 5.92	67 / 2.91	3.0 / 0.08	0 / 0.00	417 / 6.84	313 / 6.52	64 / 1.80	1.5 / 0.02	0.30 / 0.01	0.42	28		902	19	608	268	<25	2.3 / 6.2	DWR
3-5 1215	340	60	9.2	91	774	8.2[a]	74 / 3.69	38 / 3.15	35 / 1.52	3.6 / 0.09	14 / 0.48	190 / 3.12	204 / 4.25	18 / 0.51	2.6 / 0.04	0.50 / 0.02	0.30	11		531	18	342	162	<25	0.6 / 2.3	
4-3 1810	75	60	13.6	134	852	8.1[a]			45 / 1.96		19 / 0.64	229 / 3.76		26 / 0.73			0.30				20	396	176	<25	2.3 / 2.3	
5-1 1050	13	70	12.0	142	1030	8.0[a]	90 / 4.49	59 / 4.83	50 / 2.18	2.0 / 0.05	0 / 0.00	317 / 5.20	256 / 5.33	35 / 0.99	0.5 / 0.01	0.50 / 0.026	0.34	28	PO_4 = 0.03 As = 0.00	716	19	466	206	<25	6.2 / 2.3	
6-6 1000	9	78	11.6	140	971	7.9[a]			55 / 2.39		0 / 0.00	267 / 4.38		36 / 1.02			0.33				22	424	205	<25	6.2 / 2.3	
7-10 0915	No inflow Ponds not sampled																									
8-[illegible] 1420	Dry No flow																									
9-10 1[illegible]10	Dry No flow																									
10-1 1505	Dry No flow																									
11-14 0820	Dry No flow																									
12-5 0905	Dry No flow																									

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP): City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE 3-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

SOQUEL CREEK AT SOQUEL (STA. 76)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 1.00 Dissolved oxygen ppm	a = 1.00 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1330	4.0	53	14.2	130	923	8.4	—/7.08[c]		66/2.87		14/0.47	236/3.87		98/2.76			0.1		Total Alkalinity: 264	582[e]	29	354	138	6	Median 36	USGS
2/6 1330	3.0	55	14.1	133	933	8.4	—/6.97[c]		70/3.04		9/0.30	238/3.90		94/2.65			0.1		Total Alkalinity: 256	589[e]	30	348	138	2	Max. 7000.	
3/14 1300	58	51	10.7	96	578	8.1	—/4.74[c]		31/1.35		0/0.00	160/2.62		24/0.68			0.0			366[e]	22	237	106	4	Min. 0.62	
4/5 1450	20	63	9.4	97	657	8.0	—/5.34[c]		39/1.70		2/0.07	193/3.16		35/0.99			0.1		Total Alkalinity: 198	415[e]	24	267	105	3		
5/3 1420	8.5	72	11.0	125	756	8.4	81/4.04	23/1.90	43/1.87	5.0/0.13	0/0.00	230/3.77	132/2.75	50/1.41	0.0/0.00	0.3/0.02	0.1	28	PO_4 0.35	475[f]	24	297	108	7		
6/12 1558	7.0	66	13.8	148	793	8.5	—/6.10[c]		56/2.44		9/0.30	226/3.70		86/2.43			0.0		Total Alkalinity: 247	500[e]	29	305	102	2		
7/11 1544	2.0	70	14.2	158	780	8.6	—/5.92[c]		53/2.31		4/0.13	239/3.92		64/1.81			0.0		Total Alkalinity: 247	494[e]	28	296	93	5		
8/8 1750	1.5	75	6.8	80	766	8.1	—/6.00[c]		50/2.18		10/0.33	238/3.90		59/1.66			0.0		Total Alkalinity: 258	484[e]	27	300	88	2		
9/6 1200	1.5	62	10.7	109	738	8.0	80/3.99	23/1.93	46/2.00	4.8/0.12	0/0.00	260/4.26	101/2.10	55/1.55	1.1/0.02	0.2/0.01	0.1	37	PO_4 0.40	484[g]	25	296	83	4		
10/3 1240	1.4	61	11.3	114	746	7.9	—/6.10[c]		53/2.31		0/0.00	263/4.31		65/1.83			0.2			470[e]	27	305	89	1		
11/7 1225	9.8	57	10.1	97	841	8.1	—/6.54[c]		58/2.52		6/0.20	240/3.93		61/1.72			0.1		Total Alkalinity: 252	532[e]	28	327	120	2		
12/4 1710	8.2	55	10.1	95	853	8.1	—/6.47[c]		62/2.70		2/0.07	258/4.23		64/1.81			0.1		Total Alkalinity: 262	540[e]	29	324	109	2		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.631

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-12

ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (3)

UVAS CREEK NEAR MORGAN HILL (STA. 96)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	a = 0.99 Dissolved oxygen ppm	a = 0.99 Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1500	Dry																									
2/5 1515	1.0 (est.)	58	10.5	103	480	7.9	4.60[c]		14 / 0.61		0 / 0.00	196 / 3.21		11 / 0.31			0.1			296[e]	12	230	69	25	Median 6.2	USGS
3/13 1340	45 (est.)	51	9.8	88	223	7.9	2.02[c]		6.9 / 0.30		0 / 0.00	107 / 1.75		6.0 / 0.17			0.1		Total Alkalinity: 131	137[e]	13	101	13	35	Max. 620.	
4/4 1600	8.5 (est.)	59	13.5	135	269	8.4	2.52[c]		8.1 / 0.35		10 / 0.33	111 / 1.82		6.6 / 0.19			0.0			166[e]	12	126	19	15	Min. 0.23	
5/2 1200	18 (est.)	62	12.0	124	254	8.2	26 / 1.30	13 / 1.04	8.5 / 0.37	1.1 / 0.03	0 / 0.00	124 / 2.03	22 / 0.46	6.0 / 0.17	0.9 / 0.01	0.2 / 0.01	0.0	18		157[f]	14	117	15	5		
6/13 1458	123 (est.)	61	13.1	134	273	8.2	2.48[c]		8.5 / 0.37		0 / 0.00	139 / 2.28		6.0 / 0.17			0.1			169[e]	13	124	10	5		
7/12 1550	95 (est.)	69	11.8	132	281	8.2	2.56[c]		9.0 / 0.39		0 / 0.00	142 / 2.33		6.0 / 0.17			0.1			173[e]	13	128	12	4		
8/8 1100	1.0 (est.)	76	8.5	102	341	8.4	3.20[c]		11 / 0.48		0 / 0.00	182 / 2.98		7.6 / 0.21			0.0			211[e]	13	160	11	5		
9/4 1530	0.25 (est.)	80	11.3	141	338	8.2	34 / 1.70	18 / 1.48	12 / 0.52	0.9 / 0.02	10 / 0.33	166 / 2.72	23 / 0.48	7.5 / 0.21	0.4 / 0.01	0.1 / 0.01	0.1	26	Total Alkalinity: 186	212[g]	14	159	6	3		
10/1 1540	3.0 (est.)	80	11.2	140	354	8.2	3.48[c]		12 / 0.52		4 / 0.13	192 / 3.15		8.8 / 0.25			0.0		Total Alkalinity: 200	218[e]	13	174	10	1		
11/5 1610	125 (est.)	59	9.2	92	207	7.3	1.94[c]		7.0 / 0.30		0 / 0.00	101 / 1.66		5.2 / 0.15			0.1			128[e]	13	97	14	20		
12/3 1145	15 (est.)	55	11.2	106	283	7.6	2.62[c]		8.7 / 0.38		0 / 0.00	149 / 2.44		6.5 / 0.18			0.0			175[e]	13	131	9	30		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves. f = 0.617

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

COLORADO RIVER AQUEDUCT AT LA VERNE (STA. 69)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
January Composite Sample		[illegible]			[illegible]	8.5[b]	[illegible] / 4.29	30 / 2.42	[illegible] / 4.26	4 / 0.10	1 / 0.03	144 / 2.36	294 / 6.12	90 / 2.54	1.5 / 0.02	0.4 / 0.02		9.3	FREE CO_2 = 1 ppm	686	38	336	216	2.5		MWD
February Composite Sample		53			1060	8.5[b]	87 / 4.34	29 / 2.34	97 / 4.22	4 / 0.10	1 / 0.03	145 / 2.38	294 / 6.12	87 / 2.45	1.6 / 0.03	0.4 / 0.02		9.4	FREE CO_2 = 1 ppm	682	38	334	213	2.2		
March Composite Sample		54			1080	8.4[b]	86 / 4.29	29 / 2.34	99 / 4.31	5 / 0.13	1 / 0.03	144 / 2.36	293 / 6.09	90 / 2.54	1.8 / 0.03	0.4 / 0.02		9.6	FREE CO_2 = 1 ppm	686	39	332	212	1.5		
April Composite Sample		58	8.[illegible]	84	1085	8.5[b]	88 / 4.39	28 / 2.30	99 / 4.31	5 / 0.13	2 / 0.07	143 / 2.35	295 / 6.14	88 / 2.48	1.4 / 0.02	0.4 / 0.02		9.2		688	39	335	214	0.8		
May Composite Sample						8.4[b]	87 / 4.34	29 / 2.38	99 / 4.31	5 / 0.13	2 / 0.07	142 / 2.33	293 / 6.09	88 / 2.48	1.7 / 0.03	0.4 / 0.02	0.17 / 0.05	9.0			39	337	217	0.06		
June Composite Sample					1090	8.3[b]	86 / 4.29	30 / 2.42	96 / 4.18	5 / 0.13	0 / 0.00	142 / 2.33	298 / 6.20	88 / 2.48	1.6 / 0.03	0.4 / 0.02		9	FREE CO_2 = 1 ppm	685	38	336	220	0.8		
July Composite Sample		73			110	8.3[b]	85 / 4.24	30 / 2.42	102 / 4.44	5 / 0.15	1 / 0.03	132 / 2.16	300 / 6.24	94 / 2.65	1.8 / 0.03	0.4 / 0.02		9	FREE CO_2 = 1 ppm	694	40	334	224	0.7		
August Composite Sample		75			1120	8.2[b]	84 / 4.19	30 / 2.47	102 / 4.44	5 / 0.13	0 / 0.00	133 / 2.18	306 / 6.36	95 / 2.68	1.4 / 0.02	0.4 / 0.02		9.3		700	40	333	224	0.7		
September Composite Sample		7[illegible]			1130	8.3[b]	84 / 4.19	31 / 2.51	108 / 4.70	5 / 0.13	0 / 0.00	138 / 2.26	310 / 6.45	96 / 2.71	1.4 / 0.02	0.5 / 0.03		9		714	41	335	222	1.0		
October Composite Sample					1115	8.3[b]	87 / 4.34	30 / 2.47	105 / 4.57	5 / 0.13	1 / 0.03	137 / 2.25	314 / 6.53	94 / 2.65	1.6 / 0.03	0.4 / 0.04		9.4		716	40	341	227			
November Composite Sample							89 / 4.44	29.5 / 2.42	109 / 4.74	4 / 0.10	1 / 0.03	142 / 2.33	312 / 6.49	98 / 2.76	1.8 / 0.03	0.4 / 0.02		9.9	FREE CO_2 = 1 ppm	726	41	343	225	1.2		
December Composite Sample					1135	8.4[b]	90 / 4.49	30 / 2.47	104 / 4.52	5 / 0.13	1 / 0.03	143 / 2.35	312 / 6.49	96 / 2.71	1.6 / 0.03	0.4 / 0.02	0.13 / 0.04		FREE CO_2 = 1 ppm IRON = 30 ppm	721	39	348	229	0.9		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR), as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

LOS ANGELES AQUEDUCT NEAR SAN FERNANDO (70)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
equivalents per million																										
1962																										
1-16	492	45	11.0		362	8.54[a]	24.8	5.4	35	4.2			30	18	0.6	.52	.40	26	NH_3=.01; NO_2=.000 N=.33; Fe=.01			84		6	.16 .022	LADWP
2-20	230	48	10.3		334	8.39[a]	24.8	5	33	4.3			28	18	0.9	.52		27	NH_3=.01; N=.27 NO_2=.02; Fe=.015			83		8	.051	
3-20	489	48	11.8		347	8.44[a]	26	5.2	40	4.4			31	20	2.2	.58	0.41	27	NH_3=0.0; N=.24 NO_2=0.0; [illegible]			86		5	.16 .051	
4-17	494	59	9.2		351	8.60[a]	26	5.9	35	4.3			33	18	0.7	0.59	0.38	26	NH_3= 0.02; NO_2=.01 N=.41; Fe=.01			90		4	.16 .022	
5-22	498	61	.0		331	8.22[a]	24	6.4	39	4.3			32	18	0.6	0.61	0.52	23	NH_3=0.02; N=0.41 NO_2=0.00; Fe=0.01			86		5	.16	
6-19	498	66	8.6		313	10.46	22	4.9	38	4.1			28	16	0.3	0.60	0.49	21	NH_3=0.00; N=0.40 NO_2=0.005; Fe=0.02			74		6	.022	
7-24	499	72	7.6		229	8.30[a]	18	2.9	24	3.1			21	11	0.5	0.48	0.35	18	NH_3=0.02; N=0.03 NO_2=0.00; Fe=0.02			56		8	.051 .022	
8-21	497	70.7	7.8		252	8.22[a]	19	3.9	28	3.5			21	13	0.5	0.53	0.40	21	NH_3=0.00; N=0.54 NO_2=0.00; Fe=0.02			64		10	.051 .022	
9-17	496	70.7	7.8		281	8.30	20	3.9	30	4.1			18	17	0.7	0.46	0.49	23	NH_3=0.00; N=0.28 NO_2=0.28; Fe=0.10			66		7	.051 .022	
10-16	494	63	3.8		385	8.48[a]	27	6.8	40	4.3			28	19	0.6	0.60	0.57	24	NH_3=0.00; N=0.23 NO_2=0.02; Fe=0.01			96		5	.066 .022	
11-13	347.1	59	9.6		313	8.38[a]	22	4.6	29	3.8			20	16	0.6	0.63	0.44	22	NH_3=0.00; N=0.28 NO_2=0.02; Fe=0.01			75		8	0.92 0.16	
12-18	475	52	10.0		296	8.40[a]	22	4.1	33	3.6			19	15	0.5	0.52	0.45	22	NH_3=0.02; N=0.34 NO_2=0.01; Fe=0.04			71		5	.092 .022	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 4-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

LOS ANGELES RIVER AT LONG BEACH (STA. 48)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-3 1:30	11	59	0	0		7.5	222	107	3100		0.0	353	225	4041.0	0				5 day BOD = 64.0 Oil & grease = 53.0 ABs = 0.0	9546				Slight	21[illegible]	[illegible]
2-7 10:30	10.4	64	0	0		7.3	584	292	6800		0.0	633	24	14750	1.3				Oil & grease = 78.8	29760				Moderate		
3-7	not sampled																									
4-4 1:[illegible]	[illegible]	64	0.8	0.02		8.3	166	100	1450		0.0	228	232	31[illegible]0	0.0				Cr^{+6} = 0.13 ABs = 0.16	5887				Moderate	62	
5-2 1:[illegible]	1[illegible]	92	0.0	0		7.3	580	293	8800		0.0	518	7.9	14370	1.8				Oil & grease = 72.4 5 day BOD = 511.4	29000				Moderate	0.45	LBDPH
6-[illegible] [illegible]	1[illegible]	74	5.2	60	11641	8.2[a]	196 9.[illegible]	[illegible] [illegible]	2200 95.70	2[illegible] 0.65	0 0.00	3[illegible]1 5.24	19[illegible] 4.11	3[illegible]0 105.[illegible]	1.0 0.02	0.[illegible]2 0.04	2.00	26	PO_4 = 3.00 NH_4 = 16 As^4 = 1.00	7050	84	[illegible]64	5[illegible]2	40	[illegible]00 700	DWR
7-[illegible] 1:[illegible]	1[illegible]	69	2.8	3.3		7.6	20[illegible]	83	2650		0.0	262	201	4[illegible]	0.[illegible]				Oil & grease = 131	8200				Moderate	[illegible]00	[illegible]
[illegible] 10:[illegible]	1[illegible]	81	1.9	2.4		7.4	2[illegible]	102	3700		0.0	396	164	[illegible]800	0.0				ABs = 0.00 Oil & grease = 117	11451				Moderate	24000	
[illegible]-1 1:[illegible]	11.[illegible]					[illegible].3	211	1[illegible]	2900		0.0	341	246	4[illegible]	0.0				ABs = 0.16 Oil & grease = 58	9300				Moderate	[illegible]0[illegible]	
9-[illegible] 1:[illegible]	1[illegible]	68	0	0.0		7.7	3[illegible]4	1[illegible]	4[illegible]5		0.0	40[illegible]	2[illegible].5	[illegible]	0.0				Oil & grease = 39.0 Cr^{+6} = 0.0 5 day BOD = 156	13[illegible]5				Mod-	[illegible]2000	[illegible]
[illegible] [illegible]	1[illegible].4	74	1.2	12	14993	7.8[a]	330 11.4[illegible]	11[illegible] 9.[illegible]	31[illegible]0 13[illegible].03	29 1.00	0 0.00	[illegible] 9.0[illegible]	202 4.20	[illegible]1[illegible] 145.[illegible]4	3.[illegible] 0.[illegible]	0.[illegible]2 0.04	10	29	PO_4=[illegible].6; As-3.5 NH_4=21; ABs=2.1	9[illegible]00	[illegible]5	10[illegible]	[illegible]02	2[illegible]	[illegible] 240	[illegible]
11-[illegible] 1:[illegible]	14.6	68	Not avail-able			7.3[b]	21[illegible]	1[illegible]2	3000		0 0.00	3.0[illegible]	4[illegible]1	[illegible]300	0					9[illegible]0					[illegible]0000	LB[illegible]
12-[illegible] 10:[illegible]	13.8	61				7.6[b]	202	1[illegible]3	3000		0 0.00	2[illegible]4	44[illegible]	4[illegible]0	0.2					9750					[illegible]	LB[illegible]

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

LOS ANGELES RIVER AT LOS ANGELES (STA. 47)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-[illegible] 1[illegible]	1.	[illegible]	[illegible]			8.1	88	75	230		30	175	461	460	7		0.80		Cr^{+6} = 0.02 ABs = 0.0 Oil & grease = 68	1048					4.3	LAHD
3-[illegible] 1[illegible]	1.	[illegible]	11.[illegible]	144		8.4	86	69	172		30	125	420	280			0.6		Cr^{+6} = 0.044 ABs = 0 Oil & grease = 74	843					4.3	LAHD
3-[illegible] 1[illegible]	[illegible]	[illegible]	9.8	[illegible]		7.9	4	64	64		10	130	263	120			0.10		Cr^{+6} = 0.0 PO_4 = 0.0 Oil & grease = 29	623					110	LAHD
4-4 1[illegible]	1	[illegible]	13.92	139		8.2	[illegible]	93	223		30	225	354	300	0		0.20		Cr^{+6} = trace ABs = 0 Oil & grease = 52.5	1134					230	LAHD
[illegible]-2 111[illegible]		[illegible]	14.24	1[illegible]		8.0	83	67.5	345		0	250	366.3	374	14		1.2		Cr^{+6} = 0.00	1384					430	LAHD
[illegible]- 113[illegible]	[illegible]	[illegible]	[illegible]	12[illegible]	2331	8.1[a]	0 4.34	41 3.37	342 14.[illegible]	6.6 0.1[illegible]	0 0.00	405 7.[illegible]	333 6.94	3[illegible] 10.10	2.0 0.03	0.[illegible]2 0.04	1.12	30	PO_4 = 0.64 NH_4 = 1.4 As = 0.00	1455	64	410	[illegible]8	60	240 62	DWR
[illegible]-[illegible] 113	[illegible].3	[illegible]	[illegible].4	[illegible]		7.[illegible]	94	56	382		50	300	502	400	0		0.90		C^{+6} = 0.00 ABs = 0.00 Oil & grease = 84	15[illegible]4					.03	LAHD
7-11 1[illegible]	[illegible].1		1[illegible]	210		9.0	88	62	386		120	105	551	390	0		1.40		C^{+6} = 0.0 PO_4 = 0.0 Oil & grease = 14.2	1430					110	LAHD
[illegible]-1 108[illegible]	[illegible]	[illegible]	[illegible]	[illegible]3		8.1	90	98	499		40	295	613	530					C^{+6} = 0.2 ABs = trace Oil & grease = 129	1870					2400	LAHD
9-[illegible] 111[illegible]		[illegible]	14.4[illegible]			3.[illegible]	94	15	409.4		65	125	609	380	3				Cr^{+6} = 0.0 Oil & grease = 67 5 day BOD = 8.4	1539					110	LAHD
9-[illegible] 09[illegible]	[illegible].1	[illegible]	16.[illegible]	[illegible]	2829	8.2[a]	32 4.09	52 4.27	495 21.53	6.2 0.16	0 0.[illegible]	320 5.24	535 11.14	478 13.48	0.0 0.00	0.88 0.05	2.00	26	PO_4 = 0.44 ABs = 0.32	1820	72	416	154	25	62 23	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

LOS ANGELES RIVER AT LOS ANGELES (STA. 47)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
11-7 1100	0.1	64	6.56	68.5		8.2	112	87	446.2		0	240	621.4	640	7			2.0		1977		400			930	MWD
12-5 1030	0.03	57	6.64	64		8.1	112	83	598		40	350	518.5	670	2			1.2		1820		350			6.64 64	MWD

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

MATILIJA CREEK ABOVE [illegible]

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-2																										
1-[illegible] 0950	4.5	58	8.0	79	1311	7.5[a]			91 / 3.96		0 / 0.00	301 / 4.94		70 / 1.97			1.90				26	507	200	<25	1.3 / 1.3	[illegible]
2-7 0740	6.5	54	8.4	79	1123	7.3[a]	104 / 5.19	45 / 3.69	83 / 3.61	3.0 / 0.07	0 / 0.00	221 / 3.62	345 / 7.18	54 / 1.52	0.6 / 0.01	0.9 / 0.05	1.60	18		771	29	444	203	<25	0.40 / 0.6	
2-8 1135	817	49			453	7.8[b]	62 / 3.10	12 / 0.95	15 / 0.66	1.6 / 0.04	0 / 0.00	140 / 2.30	109 / 2.26	2 / 0.05	9.3 / [illegible]	0.3 / 0.017	0.11	13		304	14	203	60	3100		
3-8 1130	98	58	11.2	108	881	8.1[a]			29 / 1.26		0 / 0.00	215 / 3.52		8 / 0.23			0.32				13	422	240	<25	2.3 / <0.45	
4-5 1750	59	58	10.8	104	805	8.2[a]			37 / 1.61		0 / 0.00	207 / 3.40		13 / 0.37			0.35				16	413	243	<25	0.6 / <0.45	
5-3 1700	32	60	9.2	92	922	7.9[a]	116 / 5.79	35 / 2.85	39 / 1.70	1.9 / 0.05	0 / 0.00	222 / 3.64	295 / 6.14	15 / 0.42	0.0 / 0.00	0.67 / 0.035	0.44	22	PO_4 = 0.00 As = 0.00	659	16	432	250	<25	0.6 / <0.45	
6-3 0800	20	62	8.6	90	965	7.9[a]			44 / 1.91		0 / 0.00	232 / 3.80		21 / 0.59			0.66				18	435	245	<25	0.2 / 2.3	
7-9 0730	6.6	70	8.0	89	1019	7.3[a]			50 / 2.18		0 / 0.00	245 / 4.02		27 / 0.76			0.79				19	454	254	<25	0.2 / 2.3	
8-6 0940	6.0 est.	72	6.4	96	1088	8.0[a]			58 / 2.52		0 / 0.00	239 / 3.92		42 / 1.18			1.18				22	445	249	<25	0.2 / 0.2	
9-11 1345	3.5	68	8.0	88	1097	7.9[a]	125 / 6.24	31 / 2.54	74 / 3.22	3.1 / 0.08	0 / 0.00	242 / 3.96	300 / 6.25	63 / 1.78	1.5 / 0.02	1.2 / 0.06	1.84	21	PO_4 = 0.03	702	27	439	241	<25	0 / 210	
10-2 1100	3.5	72	8.0	91	1128	7.8[a]			79 / 3.44		0 / 0.00	245 / 4.02		69 / 1.95			2.14				28	448	247	<25	. / 2.3	
11-13 1435	4.0	54	10.4	97	1133	8.1[a]			73 / 3.18		0 / 0.00	246 / 4.04		67 / 1.69			1.66				26	443	241	<25	0.2 / <0.45	
12-4 1520	2.5	62	7.6	77	1140	7.7[a]			75 / 3.26		0 / 0.00	246 / 4.04		66 / 1.86			1.62				26	405	203	<25	0.6 / 2.3	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

MISSION CREEK AT WHITTIER NARROWS (STA. 49a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1960																										
1-1[illegible] 0955	0.[illegible]	[illegible]	[illegible].4	72	649	7.4[a]			21 / 0.91		0 / 0.00	234 / 3.84		15 / 0.42			0.09				14	290	98	<25	6 / 6	DWR
[illegible]-13 [illegible]	4.2	[illegible]	[illegible].0	[illegible]9	726	7.3[a]	94 / 4.69	25 / 2.03	24 / 1.04	3.6 / 0.09	0 / 0.00	224 / 3.68	158 / 3.29	22 / 0.62	7.3 / 0.12	0.6 / 0.03	0.12	22		457	14	336	152	<25	[illegible]00 / 21	
[illegible] 1345	9.2	64	11.2	116	[illegible]	7.4[a]			20 / 0.87		17 / 0.55	193 / 3.16		20 / 0.56			0.20				12	316	130	<25	[illegible] / 17	
4-[illegible] [illegible]	2.0	62	[illegible].2	73	[illegible]	7.9[a]	[illegible] / 4.39	26 / 2.14	24 / 1.04	2.2 / 0.06	0 / 0.00	256 / 4.20	133 / 2.78	21 / 0.59	9.5 / 0.15	0.50 / 0.03	0.20	26		445	14	328	118	<25	230 / 60	
[illegible] [illegible]	1.[illegible]	[illegible]	[illegible].2	[illegible]	646	7.3[a]	89 / 4.44	21 / 1.73	20 / 0.87	2.2 / 0.06	0 / 0.00	251 / 4.12	105 / 2.19	18 / 0.51	6.0 / 0.10	0.64 / 0.03	0.08	23	PO_4 = 0.04 As = 0.00	425	12	390	184	<25	23 / 62	
6-11 [illegible]	1.1	64	6.0	63	742	7.3[a]			25 / 1.09		0 / 0.00	259 / 4.24		18 / 0.51			0.13				14	348	136	<25	23 / 13	
[illegible]-6 [illegible]	0.9	[illegible]	[illegible]	[illegible]	694	7.9[a]			23 / 1.00		0 / 0.00	234 / 3.84	117 / 2.44	17 / 0.48			0.10				14	301	109	<25	240 / 62	
[illegible]-[illegible] [illegible]	1.2	70	[illegible]	76	474	7.3[a]	54 / 2.69	21 / 1.73	18 / 0.78	2.4 / 0.06	0 / 0.00	163 / 2.68	81 / 1.68	14 / 0.39	3.0 / 0.05	0.48 / 0.03	0.09	18		320	17	195	61	<25	6 / 130	
9-13 [illegible]	0.44	[illegible]	7.6	83	430	7.3[a]	54 / 2.69	14 / 1.13	16 / 0.70	2.8 / 0.07	0 / 0.00	177 / 2.90	63 / 1.31	8 / 0.23	1.3 / 0.03	0.50 / 0.03	0.08	19	PO_4 = 0.00 As = 0.00	270	15	191	47	<25	23 / 60	
10-3 1045	1.1	70	6.8	76	434	7.3[a]			16 / 0.70		0 / 0.00	177 / 2.90		10 / 0.28			0.06				15	191	46	<25	62 / 4.6	
11-1[illegible] [illegible]	1.6	62	9.2	100	542	7.5[a]			16 / 0.70		0 / 0.00	215 / 3.52		10 / 0.28			0.09				16	249	73	<25	21 / 240	
12-4 [illegible]	2.0	[illegible]	[illegible]	[illegible]4	592	7.5[a]			17 / 0.74		0 / 0.00	232 / 3.80		13 / 0.37			0.05				12	275	85	<25	13 / 23	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

PIRU CREEK NEAR PIRU (STA. 46c)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/mi	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-2																										
1-[illegible] 1300	Dry No flow																									
2-7 1135	25 est.	52	9.6	88	1439	8.1[a]	130 / 6.79	48 / 3.97	118 / 5.13	5.4 / 0.14	10 / 0.56	198 / 3.24	524 / 10.91	54 / 1.52	1.9 / 0.03	0.7 / 0.03	2.10	14		1063	32	538	348	<25	6 <4.5	DWR
2-20 1410	20 est.				1135	7.8[b]	82 / 4.08	89 / 7.28	40 / 1.76	3.0 / 0.08	0 / 0.00	196 / 3.22	477 / 9.94	12 / 0.32	7.0 / 0.12	0.7 / 0.04	0.23	7		850	13	568	407	500		TTL
3-[illegible] 1435	50 est.	64	9.2	96	1642	7.9[a]	100 / 7.98	66 / 5.42	122 / 5.31	5.7 / 0.15	0 / 0.00	261 / 4.28	647 / 13.46	38 / 1.07	3.1 / 0.05	1.2 / 0.06	1.00	26		1294	28	670	456	100	6 460	DWR
4-3 1325	30 est.	62	11.6	118	939	8.[illegible]	100 / 4.99	36 / 2.96	62 / 2.70	4.2 / 0.11	19 / 0.64	137 / 2.24	344 / 7.16	18 / 0.51	4.5 / 0.07	0.88 / 0.05	0.60	16		690	25	398	254	<25	11.6 118	
5-3 1140	40 est.	70	[illegible]	96	855	8.2[a]	94 / 4.69	33 / 2.69	45 / 1.96	3.5 / 0.09	0 / 0.00	161 / 2.64	295 / 6.15	13 / 0.37	3.6 / 0.06	0.9 / 0.05	0.62	18	PO_4 = 0.06 As = 0.00	624	21	369	237	30	6.2 23	
6-6 1100	100 est.	62	9.6	98	918	8.0[a]			51 / 2.22		0 / 0.00	181 / 2.96		14 / 0.39			0.[illegible]				22	386	238	<25	0.6 0.6	
7-9 1015	100 est.	60	10.4	103	769	8.3[a]	88 / 4.39	26 / 2.17	43 / 1.87	3.6 / 0.09	0 / 0.00	156 / 2.56	254 / 5.30	11 / 0.31	1.8 / 0.03	0.7 / 0.04	0.50	18		545	22	328	200	<25	6.2 2.3	
8-8 1015	100 est.	66	10.4	112	804	8.2[a]			44 / 1.91		0 / 0.00	159 / 2.60		12 / 0.34			0.66				23	329	199	<25	2.3 6.2	
9-10 1105	5 est.	72	11.2	130	1481	7.9[a]	141 / 7.04	63 / 5.18	120 / 5.22	5.8 / 0.15	12 / p.40	290 / 4.76	541 / 11.27	33 / 0.93	0 / 0.00	1.2 / 0.06	1.00	17	PO_4 = 0.07	1136	30	611	353	<25	6 23	
10-1 0935	15 est.	68	9.2	100	1107	7.9[a]			72 / 3.13		0 / 0.00	224 / 3.68		23 / 0.65			0.81				25	462	278	<25	62 240	
11-13 1140	15 est.	60	10.4	103	1306	8.0[a]			174 / 7.57		0 / 0.00	272 / 4.46		25 / 0.71			0.90				29	535	312	<25	13 23	
12-4 1155	15 est.	58	10.8	105	1455	8.0[a]			100 / 4.35		0 / 0.00	276 / 4.52		31 / 0.87			0.91				27	596	370	<25	13 70	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)
RIO HONDO AT WHITTIER NARROWS (STA. 49)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-10 0900	148	58	9.6	93	1120	8.1[a]			106 / 4.61		3.6 / 0.12	150 / 2.46	291 / 6.06	89 / 2.51			0.14				41	334	205	<25	2.3 / 2.3	DWR
2-13 0925	916	56	8.8	84	297	8.0[a]	34 / 1.70	10 / 0.84	9.7 / 0.42	4.0 / 0.10	0 / 0.00	126 / 2.06	24 / 0.49	7 / 0.20	14 / 0.23	0.3 / 0.02	0.08	12		176	14	127	24	900	240 / 700	
3-7 1325	181	66	9.2	99	346	8.2[a]			11 / 0.48	—	0 / 0.00	161 / 2.64	26 / 0.54	8 / 0.23			0.08				14	146	14	75	62 / 240	
4-3 0805	132	58	11.2	110	1070	7.8[a]			100 / 4.35		7.2 / 0.24	146 / 2.40	294 / 6.12	89 / 2.51			0.14				39	341	209	<25	6 / 0.6	
5-8 0745	141	64	8.8	92	1086	7.9[a]	90 / 4.49	27 / 2.22	100 / 4.35	4.8 / 0.12	0 / 0.00	161 / 2.64	288 / 6.00	90 / 2.54	2.0 / 0.03	0.60 / 0.03	0.14	11	PO_4 = 0.04 As^4 = 0.00	720	39	337	205	<25	6.2 / 13	
6-11 0800	153	66	8.8	95	1097	7.9[a]			102 / 4.44		0 / 0.00	154 / 2.52	288 / 6.00	90 / 2.54			0.15				40	335	209	<25	23 / 0.6	
7-6 0920	6	72	6.4	73	1179	7.8[a]	90 / 4.49	32 / 2.67	109 / 4.74	7.2 / 0.18	0 / 0.00	246 / 4.04	226 / 4.71	108 / 3.05	9.0 / 0.15	0.7 / 0.04	0.23	25		765	40	358	196	<25	62 / 240	
8-2 0800	220	76	8.4	99	1152	7.9[a]	85 / 4.24	30 / 2.47	102 / 4.44	5.2 / 0.13	0 / 0.00	144 / 2.36	308 / 6.41	96 / 2.71	2.5 / 0.04	0.56 / 0.03	0.15	11		745	40	335	217	<25	6 / 6	
9-13 0815	5.2	68	8.4	92	873	7.9[a]	71 / 3.54	24 / 1.98	82 / 3.57	8.3 / 0.21	0 / 0.00	238 / 3.90	155 / 3.23	67 / 1.89	4.4 / 0.07	1.1 / 0.06	0.25	24	PO_4 = 0.5 As^4 = 0.00	572	38	276	80	<25	6 / 23	
10-3 1110	150	78	7.6	91	1125	7.9[a]			100 / 4.35		0 / 0.00	145 / 2.38	301 / 6.27	94 / 2.65			0.13				39	341	222	<25	240 / 240	
11-3 0850	3.4	62	6.0	61.1	952	7.6[a]			77 / 3.[illegible]		0 / 0.00	243 / 3.98		66 / 1.86			0.22		(All natural flow)		35	315	116	<25	23 / 130	
12-4 0910	38.6	62	9.6	98	1178	7.9[a]			102 / 4.44		0 / 0.00	163 / 2.68	302 / 6.29	96 / 2.71			0.13				33	356	222	<25	6.2 / 13	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

PIRU CREEK NEAR PIRU (STA. 46c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-9 1300	Dry No flow																									
2-7 1135	25 est.	52	9.6	88	1439	8.1[a]	130 / 6.79	48 / 3.97	118 / 5.13	5.4 / 0.14	16 / 0.56	198 / 3.24	524 / 10.91	54 / 1.52	1.9 / 0.03	0.7 / 0.03	2.10	14		1063	32	538	348	<25	6 <4.5	DWR
2-20 1410	20 est.				1135	7.8[b]	82 / 4.08	89 / 7.28	40 / 1.76	3.0 / 0.08	0 / 0.00	196 / 3.22	477 / 9.94	12 / 0.32	7.0 / 0.12	0.7 / 0.04	0.23	7		850	13	568	407	500		TTL
3-8 1435	50 est.	64	9.2	96	1042	7.9[a]	100 / 7.98	66 / 5.42	122 / 5.31	5.7 / 0.15	0 / 0.00	261 / 4.28	647 / 13.48	38 / 1.07	3.1 / 0.05	1.2 / 0.06	1.00	26		1294	28	670	456	100	6 460	DWR
4-3 1325	30 est.	62	11.6	118	939	8.3[a]	100 / 4.99	36 / 2.96	62 / 2.70	4.2 / 0.11	19 / 0.64	137 / 2.24	344 / 7.16	18 / 0.51	4.5 / 0.07	0.88 / 0.05	0.60	16		690	25	398	254	<25	11.6 118	
5-3 1140	40 est.	70	8.8	98	855	8.2[a]	94 / 4.69	33 / 2.69	45 / 1.96	3.5 / 0.09	0 / 0.00	161 / 2.64	295 / 6.15	13 / 0.37	3.6 / 0.06	0.9 / 0.05	0.62	18	PO_4 = 0.06 As = 0.00	624	21	369	237	30	6.2 23	
6-6 1100	100 est.	62	9.6	98	918	8.0[a]			51 / 2.22		0 / 0.00	181 / 2.96		14 / 0.39			0.52				22	386	238	<25	0.6 0.6	
7-9 1015	100 est.	60	10.4	103	769	8.3[a]	88 / 4.39	26 / 2.17	43 / 1.87	3.6 / 0.09	0 / 0.00	156 / 2.56	254 / 5.30	11 / 0.31	1.8 / 0.03	0.7 / 0.04	0.50	18		545	22	328	200	<25	6.2 2.3	
8-8 1015	100 est.	66	10.4	112	804	8.2[a]			44 / 1.91		0 / 0.00	159 / 2.60		12 / 0.34			0.66				23	329	199	<25	2.3 6.2	
9-10 1105	5 est.	72	11.2	130	1481	7.9[a]	141 / 7.04	63 / 5.18	120 / 5.22	5.8 / 0.15	12 / p.40	290 / 4.76	541 / 11.27	33 / 0.93	0 / 0.00	1.2 / 0.06	1.00	17	PO_4 = 0.07	1136	30	611	353	<25	6 23	
10-1 0935	15 est.	68	9.2	100	1107	7.9[a]			72 / 3.13		0 / 0.00	224 / 3.68		23 / 0.65			0.81				25	462	278	<25	62 240	
11-13 1140	15 est.	60	10.4	103	1306	8.0[a]			174 / 7.57		0 / 0.00	272 / 4.46		25 / 0.71			0.90				29	535	312	<25	13 23	
12-4 1155	15 est.	58	10.8	105	1455	8.0[a]			100 / 4.35		0 / 0.00	276 / 4.52		31 / 0.87			0.91				27	596	370	<25	13 70	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)
RIO HONDO AT WHITTIER NARROWS (STA. 49)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-10 0900	148	58	9.6	93	1120	8.1[a]			106 / 4.61		3.6 / 0.12	150 / 2.46	291 / 6.06	89 / 2.51			0.14				41	334	205	<25	2.3 2.3	DWR
2-13 0925	916	56	8.8	84	297	8.0[a]	34 / 1.70	10 / 0.84	9.7 / 0.42	4.0 / 0.10	0 / 0.00	126 / 2.06	24 / 0.49	7 / 0.20	14 / 0.23	0.3 / 0.02	0.08	12		176	14	127	24	500	240 700	
3-7 1325	181	66	9.2	99	346	8.2[a]			11 / 0.48	—	0 / 0.00	161 / 2.64	26 / 0.54	8 / 0.23			0.08				14	146	14	75	62 240	
4-3 0805	132	58	11.2	110	1070	7.8[a]			100 / 4.35		7.2 / 0.24	146 / 2.40	294 / 6.12	89 / 2.51			0.14				39	341	209	<25	6 0.6	
5-8 0745	141	64	8.8	92	1086	7.9[a]	90 / 4.49	27 / 2.22	100 / 4.35	4.8 / 0.12	0 / 0.00	161 / 2.64	288 / 6.00	90 / 2.54	2.0 / 0.03	0.60 / 0.03	0.14	11	PO_4 = 0.04 As^4 = 0.00	720	39	337	205	<25	6.2 13	
6-11 0800	153	56	8.8	95	1097	7.9[a]			102 / 4.44		0 / 0.00	154 / 2.52	288 / 6.00	90 / 2.54			0.15				40	335	209	<25	23 0.6	
7-6 0920	6	72	6.4	73	1179	7.8[a]	90 / 4.49	32 / 2.67	109 / 4.74	7.2 / 0.18	0 / 0.00	246 / 4.04	226 / 4.71	108 / 3.05	9.0 / 0.15	0.7 / 0.04	0.23	25		765	40	358	156	<25	62 240	
8-2 0800	220	76	8.4	99	1152	7.9[a]	85 / 4.24	30 / 2.47	102 / 4.44	5.2 / 0.13	0 / 0.00	144 / 2.36	308 / 6.41	96 / 2.71	2.5 / 0.04	0.56 / 0.03	0.15	11		745	40	335	217	<25	6 6	
9-13 0815	5.2	68	8.4	92	873	7.9[a]	71 / 3.54	24 / 1.98	82 / 3.57	8.3 / 0.21	0 / 0.00	238 / 3.90	155 / 3.23	67 / 1.89	4.4 / 0.07	1.1 / 0.06	0.25	24	PO_4 = 0.5 As^4 = 0.00	572	38	276	80	<25	6 23	
10-3 1110	150	78	7.6	91	1125	7.9[a]			100 / 4.35		0 / 0.00	145 / 2.38	301 / 6.27	94 / 2.65			0.13				39	341	222	<25	240 240	
11-3 0850	3.4	62	6.0	61.1	952	7.6[a]			77 / 3.[illegible]		0 / 0.00	243 / 3.98		66 / 1.86			0.22		(All natural flow)		35	315	116	<25	23 130	
12-4 0910	38.6	62	9.6	98	1178	7.9[a]			102 / 4.44		0 / 0.00	163 / 2.68	302 / 6.29	96 / 2.71			0.13				38	356	222	<25	6.2 13.0	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)
SANTA CLARA RIVER AT LOS ANGELES-VENTURA CO. LINE (STA. 46)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1-[illegible]																										
1-[illegible] 1330	0.[illegible]	62	4.4	45	5050	7.[illegible]a			650 / 28.2[illegible]		0 / 0.00	525 / 8.60		322 / [illegible]			1.74				44	1765	1330	<25	60 / <4.5	DWR
2-7 1210	1	54	8.[illegible]	82	4225	7.9a	270 / 13.77	193 / 15.91	546 / 23.75	8.2 / 0.21	0 / 0.00	450 / 7.38	1840 / 38.34	266 / 7.50	0.0 / 0.00	1.1 / 0.06	1.84	17		3003	44	1404	1115	<25	2.3 0.0	DWR
2-8 1200	5.33 GH	53			1015	7.5b	113 / 5.65	27 / 2.25	59 / 2.57	18 / 0.45	0 / 0.00	214 / 3.50	293 / 6.09	46 / 1.30	5.6 / 0.09	0.7 / 0.04	0.26	17		701	24	395	220	12000		
2-9 1211	750 est.	56			665	7.5b	72 / 3.61	22 / 1.79	35 / 1.50	5.6 / 0.14	0 / 0.00	128 / 2.10	214 / 4.47	16 / 0.44	8.2 / 0.13	0.8 / 0.04	0.26	12		404	21	270	165	Turbid		J. [illegible]
2-20 1125	9.56 GH				1140	8.0b	115 / 5.75	45 / 3.67	86 / 3.75	5.4 / 0.14	0 / 0.00	188 / 3.08	432 / 9.00	45 / 1.26	8.0 / 0.13	0.9 / 0.05	0.40	17		950	26	471	317	Turbid		[illegible]
3-6 1515	18	70	7.6	85	2168	8.1a	217 / 10.83	84 / 6.87	176 / 7.66	9.0 / 0.23	0 / 0.00	342 / 5.60	833 / 17.35	88 / 2.48	5.8 / 0.09	1.1 / 0.06	0.66	25		1746	30	865	605	400	240 240	DWR
4-3 1220	15	72	8.0	92	2252	8.0a			205 / 8.92		0 / 0.00	328 / 5.52		93 / 2.62			0.70				31	980	654	<25	23 <4.5	
5-3 1210	3	72	8.4	90	2369	8.0a	217 / 10.83	123 / 10.15	240 / 10.70	7.6 / 0.19	0 / 0.00	357 / 5.86	939 / 22.79	123 / 3.47	0.2 / 0.00	1.2 / 0.06	0.40	23	PO_4 = 0.03 As = 0.00	2156	34	1042	756	40	62 13	
6-6 1030	2.2	78	8.4	101	3015	7.9a			305 / 13.27		0 / 0.00	390 / 6.32		153 / 4.31			1.00				43	980	504	<25	2.3 2.3	
7-[illegible] 1100	0.6	86	8.4	114	3553	7.5a	221 / 11.03	172 / 14.17	400 / 17.40	8.1 / 0.21	0 / 0.00	300 / 600	1558 / 32.45	195 / 5.50	0.3 / 0.00	1.0 / 0.05	0.65	26		2582	41	1200	960	<25	23 62	
8-8 1045	0.4	90	7.6	104	3953	7.7a			450 / 19.56		0 / 0.00	308 / 6.04		222 / 6.26			1.42				43	1314	1012	<25	62 23	
9-10 0950	0.9	74	9.2	103	3805	7.7a	128 / 6.39	245 / 20.14	490 / 21.32	7.6 / 0.19	0 / 0.00	301 / 5.92	1740 / 36.24	224 / 6.32	5.0 / 0.08	1.1 / 0.06	[illegible]	22	PO_4=0.00;ABS=0.06 As = 0.00	3170	44	1323	1027	<25	2.3 2.3	
10-1 0900	0.6	72	9.2	104	3709	7.9a			454 / 19.75		0 / 0.00	387 / 6.34		216 / 6.09			1.38				43	1307	[illegible]	<25	2.3 2.3	
11-13 1100	1.1	62	9.6	99	3887	8.1a			484 / 21.05		0 / 0.00	421 / 6.90		203 / [illegible]			1.30					1336	801	<25	0.2 1.3	
12-4 1120	0.[illegible]	66	7.6	77	1140	7.7a			75 / 3.26		0 / 0.00	246 / 4.04		66 / 1.86			1.62				26	465	203	<25	0.6 2.3	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), [illegible] Agricultural Consultants and Laboratories [illegible]

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TABLE [illegible]-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

SANTA CLARA RIVER NEAR SANTA PAULA (STA. 46a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-[illegible] 1130	10 est.	10	10.0	100	2443	8.0[a]			191 8.31		0 0.00	355 5.82		90 2.54			1.00				29	1037	746	<25	21 240	DWR
2-7 0930	20 est.	56	10.9	55	2431	7.7			194 8.44		0 0.00	300 4.92		94 2.65			1.00				29	1052	806	<25	6 <4.5	
3-6 1330	100 est.	66	9.2	99	1558	7.6[a]	144 7.19	73 5.99	100 4.35	4.9 0.13	0 0.00	261 4.28	563 11.94	50 1.41	5.3 0.09	0.7 0.03	0.63	27		1162	25	659	445	150	6 23	
4-3 1500	100 est.	64	11.6	120	1565	7.9[a]			123 5.35		0 0.00	266 5.36		53 1.49			0.78				28	673	455	<25	62 13	
5-3 1000	80 est.	72	6.4	95	1847	7.7[a]	195 9.73	71 5.87	134 5.83	5.7 0.14	0 0.00	292 4.78	721 15.03	66 1.86	6.4 0.10	1.2 0.06	0.94	30	PO_4 = 0.0 As = 0.00	1482	27	780	541	30	23 23	
6-6 1235	20 est.	74	8.0	93	1951	7.7[a]			150 6.53		0 0.00	296 4.86		72 2.03			0.81				28	825	582	120	23 8.0	
7-9 0905	60 est.	76	9.6	118	1819	7.5[a]			134 5.83		0 0.00	289 4.74		59 1.66			0.85				27	770	534	250	6.2 23	
8-8 0820	30 est.	68	10.0	108	1992	8.0[a]			150 6.53		0 0.00	300 4.92		70 1.97			0.92				29	814	568	35	62 6.2	
9-11 1530	25 est.	74	9.2	103	2165	7.8[a]	224 11.18	93 7.62	177 7.70	6.6 0.17	0 0.00	331 5.42	896 18.66	78 2.20	5.0 0.08	1.1 0.06	0.88	32	PO_4 = 0.03 As = 0.00	1772	29	940	669	<25	62 6	
10-1 1205	20 est.	70	9.6	106	2381	8.1[a]			194 8.44		0 0.00	333 5.46		93 2.62			1.02				29	1024	751	<25	240 6.2	
11-13 1310	30 est.	[illegible]	10.0	104	2237	7.8[a]			174 7.57		0 0.00	336 5.50		80 2.26			0.94				29	939	664	<25	23 23	
12-4 1330	30 est.	68	10.8	118	2159	7.9[a]			150 6.52		0 0.00	338 5.54		80 2.26			0.79				26	916	639	<25	62 6.2	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

3250-D-B 6-61 200 SPO

TABLE 5-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

SANTA PAULA CREEK NEAR SANTA PAULA (STA. 46e)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-9 1055	2.2	58	12.4	120	1317	8.0[a]			120 / 5.22		0 / 0.00	357 / 5.86		80 / 2.26			0.63				37	442	149	<25	6 <4.5	DWR
2-7 0900	6.5	52	8.8	79	1041	7.8[a]	90 / 4.49	41 / 3.39	85 / 3.70	1.8 / 0.05	0 / 0.00	301 / 4.94	232 / 4.84	53 / 1.49	0.9 / 0.01	0.5 / 0.02	0.42	16		662	32	394	147	<25	0.6 0.6	DWR
2-8 1000	4.22				[illegible]	7.9[b]	70 / 3.50	10 / 0.80	20 / 0.89	2.3 / 0.06	0 / 0.00	146 / 2.40	121 / 2.58	11 / 0.30	4.3 / 0.07	0.4 / 0.02	0.11	11		344	17	215	95	5800		[illegible]
2-20 1700	206				605	7.9[b]	75 / 3.73	22 / 1.80	32 / 1.40	1.7 / 0.04	0 / 0.00	145 / 2.39	171 / 3.56	16 / 0.45	3.4 / 0.55	0.4 / 0.02	0.15	14		460	20	277	157	Turbid		[illegible]
3-8 1300	84	58	11.2	108	702	7.9[a]	80 / 3.99	26 / 2.11	31 / 1.35	1.6 / 0.04	0 / 0.00	187 / 3.06	188 / 3.92	17 / 0.48	2.9 / 0.05	0.3 / 0.01	0.10	17		485	18	305	152	<25	0.6 2.3	DWR
4-3 1530	54	58	12.0	116	697	8.1[a]			37 / 1.61		0 / 0.00	190 / 3.12		18 / 0.51			0.14				21	307	151	<25	0.40 <0.45	
5-3 0915	19	68	10.0	109	801	8.2[a]	95 / 4.74	26 / 2.14	42 / 1.83	1.4 / 0.04	0 / 0.00	2.2 / 3.48	216 / 4.51	23 / 0.65	0.5 / 0.01	1.1 / 0.06	0.20	16	PO_4 = 0.00	540	21	341	167	<25	2.3 6.2	
6-6 1300	15	62	10.8	110	828	8.1[a]			57 / 2.48		0 / 0.00	200 / 3.28		30 / 0.85			0.26				28	326	162	<25	<0.45 2.3	
7-9 0820	5.1	66	8.8	94	951	7.7[a]	75 / 3.74	47 / 3.90	66 / 2.87	2.3 / 0.06	0 / 0.00	276 / 4.52	233 / 4.86	38 / 1.07	0.0 / 0.00	0.4 / 0.02	0.29	15		596	27	362	156	<25	6.2 2.3	
8-8 0730	4.1	68	9.2	100	1066	8.0[a]	81 / 4.04	41 / 3.37	82 / 3.57	2.0 / 0.05	0 / 0.00	283 / 4.64	242 / 5.04	52 / 1.47	1.5 / 0.02	0.6 / 0.03	0.46	21		670	32	371	139	<25	2.3 62	
9-11 1450	2.6	76	10.8	127	960	8.1[a]	72 / 3.59	32 / 2.63	93 / 4.05	1.9 / 0.05	9.6 / 0.32	190 / 3.12	250 / 5.21	55 / 1.55	0.0 / 0.00	0.7 / 0.04	0.46	15	PO_4 = 0.00	658	39	311	139	<25	23 6	
10-1 1235	1.9	72	12.8	142	1039	8.1[a]			95 / 4.13		0 / 0.00	227 / 3.72		59 / 1.66			0.48				38	341	155	<25	0.6 2.3	
11-13 1340	1.9	62	11.6	118	1110	7.7[a]			99 / 4.31		0 / 0.00	271 / 4.44		63 / 1.78			0.46				36	377	155	<25	2.3 1.3	
12-4 1430	3.6	62	10.8	110	1140	7.3[a]			93 / 4.05		0 / 0.00	276 / 4.52		61 / 1.72			0.41				34	392	166	<25	<0.45 <0.45	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), United States Agricultural Consultants and Laboratories (USACL) as indicated.

32505-D-B 6-61 200 SPO

TABLE B-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

SESPE CREEK NEAR FILLMORE (STA. 46d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-9 1235	5.5	60	10.0	100	1456	8.0[a]			121/5.26		4.8/0.16	257/4.22		99/2.79			2.44				35	496	277		6 23	DWR
2-7 1035	21	52	10.0	90	1160	8.2[a]	102/5.09	41/3.39	91/3.[illegible]	2.9/0.07	0/0.00	207/3.40	355/7.40	58/1.64	0.0/0.00	1.7/0.09	1.56	15		789	32	424	254	<25	0.0 0.0	DWR
2-20 1540	750 est.				1867	7.6[b]	164/8.22	129/10.58	115/5.00	26/0.66	0/0.00	347/5.68	868/18.06	15/0.41	16/0.27	0.88/0.05	0.71	11		1495	20	940	656	55[illegible]		TTL
3-8 1400	350	56	11.2	106	1004	8.4[a]	136/6.79	33/2.69	41/1.78	2.5/0.06	0/0.00	220/3.60	348/7.25	15/0.42	2.3/0.04	0.7/0.03	0.30	22		735	16	474	294	<25	24 0.0	DWR
4-3 1400	100 est.	60	9.2	91	922	8.3[a]			46/2.00		0/0.00	195/3.20		18/0.51			0.84				19	415	255	<25	0.[illegible] 0.0	
5-3 1050	54 est.	70	9.2	102	966	8.2[a]	107/5.34	34/2.79	57/2.48	2.4/0.06	0/0.00	183/3.00	319/6.64	24/0.68	0.5/0.01	0.60/0.03	0.80	20	PO_4 = 0.00 As = 0.00	690	23	400	251	<25	2.3 2.[illegible]	
6-6 1140	24	72	10.4	118	934	8.3[a]			66/2.87		0/0.00	139/2.28		35/0.99			0.85				29	351	237	1000	2.3 2.[illegible]	
7-9 0940	5.5	74	8.8	102	1031	8.1[a]	90/4.49	35/2.89	80/3.48	3.7/0.09	0/0.00	168/2.76	318/6.63	49/1.38	0.2/0.00	1.1/0.06	1.22	11		694	32	369	231	<25	1.3 6.2	
8-8 0910	0.4	74	9.6	111	1499	7.8[a]	173/8.63	41/3.37	100/4.35	4.8/4.35	0/0.00	195/3.20	576/12.00	56/1.58	1.5/0.02	1.2/0.06	1.24	17		1120	27	602	442	<25	2.3 6.2	
9-10 1215	0.6	80	10.4	128	1321	7.7[a]	137/6.84	39/3.20	106/4.61	4.7/0.12	0/0.00	.63/2.68	480/9.99	67/1.89	0.4/0.00	1.6/0.08	1.42	10	PO_4 = 0.05	1061	31	502	368	<[illegible]	0.0 0	
10-1 1045	0.7	72	13.6	154	1328	8.2[a]			104/4.52		0/0.00	159/2.60		75/2.12			1.74				32	490	360	<25	46 <.45	
11-13 1220	0.8	60	14.4	146	1307	8.1[a]			105/4.57		0/0.00	173/2.84		90/2.54			1.75				33	462	320	<25	0.0 0.46	
12-4 1220	2.2	62	15.6	159	1386	7.9[a]			109/4.74		0/0.00	183/3.00		97/2.74			1.82				33	481	331	<25	2.3 0.0	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE E-13

ANALYSES OF SURFACE WATER

LOS ANGELES REGION (NO. 4)

VENTURA RIVER NEAR VENTURA (STA. 61)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-[illegible]																										
1-[illegible] 0800	0.2	46	6.0	52	1458	7.2[a]			91 / 3.96		0 / 0.00	459 / 7.59		86 / 2.43			0.70				24	611	235	<25	<4.5 <4.5	DWR
2-[illegible] 1[illegible]	0.4	60	10.0	100	1188	7.3[a]	115 / 5.74	59 / 4.86	67 / 2.91	2.6 / 0.07	0 / 0.00	334 / 5.48	272 / 5.68	72 / 2.03	9.5 / 0.15	0.5 / 0.02	0.55	22		764	13	267	0	<25	<0.45 <0.45	DWR
2-15 1215	43[illegible]	61			830	8.1[b]	106 / 5.28	27 / 2.19	41 / 1.80	3.3 / 0.08	0 / 0.00	201 / 3.30	235 / 4.90	39 / 1.09	15 / 0.24	0.6 / 0.03	0.30	14		684	19	374	209	Turbid		U[illegible]
2-19 1830	1492 est.	52			652	7.4[b]	69 / 3.45	30 / 2.47	33 / 1.45	4 / 0.09	0 / 0.00	166 / 2.72	176 / 3.66	26 / 0.73	11 / 0.18	0.4 / 0.02	0.29	7		485	19	296	190	700		TTL
3-8 0950	16	58	12.0	116	1300	7.9[a]	149 / 7.44	45 / 3.72	68 / 2.96	3.8 / 0.10	19 / 0.64	255 / 4.18	344 / 7.17	74 / 2.12	18 / 0.29	0.8 / 0.04	0.49	27		924	21	558	349	<25	6.2 6.2	DWR
4-5 0850	8.1	62	11.2	114	1140	8.0[a]			70 / 3.05		0 / 0.00	268 / 4.40		14 / 0.39			0.50				23	498	278	<25	23 62	
5-3 0800	7.9	62	10.8	110	1082	7.7[a]	130 / 6.49	36 / 2.96	56 / 2.44	2.0 / 0.05	0 / 0.00	273 / 4.48	263 / 5.48	53 / 1.49	19 / 0.31	0.76 / 0.04	0.50	22		7[illegible]	20	471	247	<25	2.3 2.3	
6-8 0710	7.2	64	6.4	67	1128	7.3[a]			59 / 2.57		0 / 0.00	304 / 4.98		53 / 1.49							21	494	244	<25	23 6.2	
7-[illegible] 0630	6.3	64	7.2	75	1102	7.3[a]			59 / 2.57		0 / 0.00	294 / 4.82		51 / 1.44			0.48				21	488	247	<25	6.2 23	
8-6 0900	2.0	70	7.6	85	1272	7.8[a]	156 / 7.78	35 / 2.88	66 / 2.87	4.6 / 0.12	0 / 0.00	337 / 5.52	309 / 6.44	63 / 1.78	2.1 / 0.03	0.68 / 0.04	0.57	25		870	20	530	254	1500	700 700	
[illegible]-11 1220	2.1	78	14.0	168	1065	8.1	118 / 5.89	38 / 3.13	64 / 2.78	3.8 / 0.07	0 / 0.00	255 / 4.18	282 / 5.88	53 / 1.49	5.4 / 0.09	0.7 / 0.04	0.52	18	PO_4 = 0.00	760	23	451	242	<25	1.3 6.2	
10-2 1200	Pond No surface inflow																									
11-13 1520	2.[illegible]	62	9.6	97.8	860	7.9[a]			63 / 2.74		0 / 0.00	307 / 5.04		48 / 1.35			0.52				22	488	236	<25	23 6.2	
12-5 1120	0.5	62	10.8	110	1173	7.5[a]			64 / 2.78		0 / 0.00	316 / 5.18		55 / 1.55			0.46				22	507	248	<25	62 6.2	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); United States Agricultural Consultants and Laboratories (USACL) as indicated

32505-D-B 6-61 200 SPO

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
AMERICAN RIVER AT FAIR OAKS (STA. 22d)

Date and time sampled P.S.T.	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/1-31	349				80	7.6	8.1 / 0.40	2.7 / 0.22	4.0 / 0.17		0 / 0.00	38 / 0.62								55[g]	22	31	0			USGS
2/1-9	422				80	7.3	9.1 / 0.45	2.6 / 0.21	4.1 / 0.18		0 / 0.00	35 / 0.57								50[g]	21	33	4			
2/10-16	4760				76	7.1	7.5 / 0.37	2.8 / 0.23	3.7 / 0.16		0 / 0.00	32 / 0.52								52[g]	21	30	4			
2/17-28	7130				70	7.3	7.3 / 0.36	2.4 / 0.20	3.3 / 0.14		0 / 0.00	30 / 0.49								50[g]	20	28	3			
3/1-31	6900				74	7.2	9.6 / 0.48	1.4 / 0.12	3.1 / 0.13		0 / 0.00	28 / 0.46								56[g]	18	30	7			
4/1-15	5380				75	7.4	11 / 0.55	0.9 / 0.07	3.3 / 0.14		0 / 0.00	34 / 0.56								54[g]	18	31	3			
4/16-30	6140				62	7.2	8.8 / 0.44	0.7 / 0.06	3.2 / 0.14		0 / 0.00	28 / 0.46								48[g]	22	25	2			
5/1-8	4580				56	7.4	6.8 / 0.34	1.0 / 0.08	3.2 / 0.14		0 / 0.00	24 / 0.39								46[g]	25	21	1			
5/9-31	2570				49	7.1	5.2 / 0.26	2.2 / 0.18	2.3 / 0.10		0 / 0.00	23 / 0.38								40[g]	19	22	3			
6/1-30	2090				46	7.4	5.5 / 0.27	0.6 / 0.05	2.2 / 0.10		0 / 0.00	21 / 0.34								39[g]	24	16	0			
7/1-31	--				45	7.3	4.0 / 0.20	1.5 / 0.12	2.3 / 0.10		0 / 0.00	21 / 0.34		2.9 / 0.08			0.0			34[g]	24	16	0			
8/1-31	3530				47	7.5	5.4 / 0.27	0.9 / 0.07	2.1 / 0.09		0 / 0.00	24 / 0.39		2.1 / 0.06			0.0			40[g]	21	17	0			
9/1-30	2650				46	7.0	4.9 / 0.24	1.2 / 0.10	2.3 / 0.10	0.5 / 0.01	0 / 0.00	20 / 0.33	0.6 / 0.01	1.2 / 0.03	4.5 / 0.07	0.2 / 0.01	0.0	11	Fe 0.00	36[f] / 39[g]	22	17	1			
10/	Discontinued																									

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

AMERICAN RIVER AT FAIR OAKS (STA. 22d)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH [b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm [g]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform [h] MPN/ml	Analyzed by [i]
							Mineral constituents in parts per million																			
							Mineral constituents in equivalents per million																			
[illegible]																										USBR
[illegible]			[illegible]		[illegible]	[illegible]	[illegible]	2.4	2.1	0.0	0.[illegible]	28	[illegible].2	7.0	0.0					[illegible]	1[illegible]					
[illegible]						[illegible]	[illegible]	[illegible]	[illegible].1	[illegible]	[illegible]	32	6.2	1.4	0.[illegible]					7[illegible]	1[illegible]					
[illegible]			[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	2.1	[illegible]	[illegible]	20	[illegible].2	2.1	0.0					7[illegible]	[illegible]					
[illegible]			[illegible]		[illegible]	[illegible]	[illegible]	1.[illegible]	[illegible].1	[illegible]	0.[illegible]	21	2.4	[illegible].7	0.0					[illegible]2	21					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
AMERICAN RIVER AT NIMBUS DAM (STA. 22a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/9 1530	333	51	12.5	112	117	7.4/7.6	0.99[c]		3.1/0.13		0/0.00	46/0.75		11/0.31			0.0			78[e]	12	49	11	2	Median 62. Maximum >7000. Minimum 0.62	USGS
2/8 1325	440	52	12.7	115	96	7.3/7.8	0.79[c]		2.9/0.13		0/0.00	37/0.61		8.1/0.23			0.0			64[e]	14	40	10	4		
3/15 0915	7420	49	12.8	111	71	7.5/7.6	0.56[c]		2.2/0.10		0/0.00	30/0.49		3.0/0.09			0.0			47[e]	15	28	3	15		
4/3 1330	5240	54	11.3	105	78	7.5/7.6	0.62[c]		4.1/0.18		0/0.00	33/0.54		4.8/0.14			0.0			52[e]	22	31	4	10		
5/10 1000	3540	57	10.9	105	48	7.1/7.3	6.4/0.32	1.0/0.08	1.9/0.08	0.7/0.02	0/0.00	23/0.38	3.0/0.06	2.5/0.07	0.1/0.00	0.2/0.01	0.0	11	ABS 0.0; PO_4 0.05	38[f]	16	20	1	4		
6/6 1240	2130	64	10.8	113	68	6.9/7.0	0.54[c]		2.4/0.10		0/0.00	25/0.41		5.5/0.16			0.0			45[e]	16	27	7	2		
7/5 0810	2900	60	9.9	99	44	7.1/7.3	0.34[c]		2.4/0.10		0/0.00	21/0.34		2.6/0.07			0.0			29[e]	23	17	0	2		
8/9 0930	3400	68	9.2	101	56	6.8/7.2	0.34[c]		3.1/0.13		0/0.00	20/0.33		2.6/0.07			0.0			37[e]	28	17	1	9		
9/11 0920	2750	67	9.1	99	58	7.1/7.0	6.5/0.32	1.5/0.12	2.3/0.10	0.4/0.01	0/0.00	24/0.39	1.0/0.02	5.0/0.14	0.0/0.00	0.1/0.01	0.0	12	As 0.00; ABS 0.0; PO_4 0.05	41[f]/48[g]	18	22	2	5		
10/2 0815	1330	64	9.9	104	128	7.1/7.3	1.02[c]		4.0/0.17		0/0.00	42/0.69		18/0.51			0.0			85[e]	14	51	17	10		
11/7 1010	2930	57	9.0	87	58	6.9/7.1	0.50[c]		2.1/0.09		0/0.00	26/0.43		1.8/0.05			0.0			39[e]	15	25	4	8		
12/3 1100	2480	56	9.9	94	196	7.1/7.7	1.55[c]		6.1/0.27		0/0.00	60/0.98		29/0.82			0.0			131[e]	15	78	29	3		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
AMERICAN RIVER AT SACRAMENTO (STA. 22)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1952	Not Rated																									
1/8 1500		50	11.7	103	80	7.5/7.5	—/0.66[c]		2.5/0.11		0/0.00	37/0.61		3.5/0.10			0.0			57[e]	14	33	3	2	Median 52. Maximum 7000. Minimum 0.23	USGS
2/6 1530		48	12.1	104	81	7.4/7.7	—/0.69[c]		3.3/0.14		0/0.00	34/0.56		5.1/0.14			0.0			58[e]	17	34	6	2		
3/5 1520		50	11.5	101	68	7.3/7.5	—/0.56[c]		2.2/0.10		0/0.00	30/0.49		2.0/0.06			0.0			48[e]	15	28	3	30		
4/4 1510		57	12.5	120	74	8.0/7.8	—/0.66[c]		2.9/0.13		0/0.00	34/0.56		3.5/0.10			0.0			53[e]	16	33	5	6		
5/10 0900		56	10.8	103	48	7.1/7.4	6.0/0.30	1.2/0.10	1.8/0.08	0.9/0.02	0/0.00	22/0.36	4.0/0.08	2.5/0.07	0.2/0.00	0.1/0.01	0.0	11	As 0.01; ABS 0.0; PO_4 0.05	39[f]	16	20	2	10		
6/6 0800		62	9.7	99	44	6.9/7.1	—/0.38[c]		1.8/0.08		0/0.00	21/0.34		1.5/0.04			0.0			31[e]	17	19	2	3		
7/5 0730		61	9.5	96	43	7.1/7.4	—/0.34[c]		2.4/0.10		0/0.00	21/0.34		2.2/0.06			0.0			31[e]	23	17	0	3		
8/8 1430		70	9.8	110	53	7.0/7.1	—/0.32[c]		2.8/0.12		0/0.00	18/0.30		3.0/0.08			0.0			38[e]	27	16	1	5		
9/11 0805		65	8.6	91	43	7.1/7.0	4.7/0.23	1.2/0.10	1.9/0.08	0.5/0.01	0/0.00	21/0.34	0.8/0.02	1.0/0.03	0.2/0.00	0.1/0.01	0.1	11	As 0.00; ABS 0.0; PO_4 0.10	32[f]/32[g]	19	17	0	1		
10/2 0705		67	8.6	93	52	7.1/7.3	—/0.36[c]		2.6/0.11		0/0.00	22/0.36		4.0/0.11			0.0			37[e]	23	18	0	10		
11/7 0900		57	9.1	88	54	7.0/7.0	—/0.43[c]		1.8/0.08		0/0.00	24/0.39		1.8/0.05			0.0			38[e]	16	22	2	10		
12/3 1000		55	9.7	91	58	7.1/7.3	—/0.46[c]		2.6/0.11		0/0.00	26/0.43		2.8/0.08			0.0			41[e]	19	23	2	4		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 3-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
AMERICAN RIVER, MIDDLE FORK NEAR AUBURN (STA. 22b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 0930	218	39	12.8	97	68	7.3/7.3	0.53[c]		2.5/0.11		0/0.00	30/0.49		3.5/0.10			0.0			49[e]	17	26	1	2	Median 6.2 Maximum 620. Minimum 0.23	USGS
2/8 0940	859	46	12.0	100	54	7.3/7.6	0.44[c]		2.5/0.11		0/0.00	24/0.39		3.6/0.10			0.0			39[e]	20	22	2	6		
3/15 1125	988	48	11.6	100	67	7.4/7.7	0.52[c]		2.1/0.09		0/0.00	30/0.49		2.1/0.07			0.0			49[e]	15	26	1	3		
4/3 0930	2670	48	11.5	99	36	7.4/7.4	0.28[c]		2.0/0.09		0/0.00	17/0.28		2.2/0.06			0.0			26[e]	24	14	0	12		
5/10 1440	4120	53	11.7	107	28	7.1/7.2	3.2/0.16	0.5/0.04	1.4/0.06	0.3/0.01	0/0.00	12/0.20	1.0/0.02	2.5/0.07	0.0/0.00	0.0/0.00	0.0	9.0	PO_4 0.00	24[f]	22	10	0	8		
6/6 0935	2150	58	11.0	107	26	6.7/7.0	0.20[c]		1.2/0.05		0/0.00	13/0.21		0.2/0.01			0.0			19[e]	20	10	0	3		
7/5 1000	470	73	8.5	98	42	7.2/7.5	0.31[c]		2.4/0.10		0/0.00	20/0.33		3.2/0.09			0.0			31[e]	24	16	0	2		
8/9 1430	87	77	8.8	106	79	7.4/7.4	0.58[c]		4.6/0.20		0/0.00	36/0.59		4.0/0.11			0.0			57[e]	26	29	0	5		
9/11 1140	43	75	9.1	107	87	7.4/7.8	9.9/0.49	2.3/0.19	3.2/0.14	0.7/0.02	0/0.00	37/0.61	6.0/0.12	4.4/0.12	0.0/0.00	0.1/0.01	0.0	13	As 0.00; ABS 0.0; PO_4 0.05	58[f] 60[g]	17	34	4	5		
10/2 1015	43	69	9.1	101	100	7.3/7.6	0.80[c]		4.7/0.20		0/0.00	45/0.74		6.0/0.17			0.1			73[e]	20	40	3	8		
11/7 1200	480	54	10.8	100	71	7.3/7.3	0.58[c]		2.7/0.12		0/0.00	33/0.54		2.2/0.06			0.0			52[e]	17	29	2	3		
12/3 1435	5000	49	12.1	105	47	7.0/7.0	0.34[c]		2.4/0.10		0/0.00	20/0.33		3.0/0.08			0.0			34[e]	23	17	1	4		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
AMERICAN RIVER, SOUTH FORK NEAR LOTUS (STA. 22c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1055	147	40	12.8	99	63	7.2/7.3	—/0.47[c]		2.7/0.12		0/0.00	29/0.48		3.8/0.11			0.0			49[e]	20	24	0	7	Median 50. Maximum 7000. Minimum 0.62	USGS
2/8 1115	508	46	12.0	100	58	7.2/7.5	—/0.44[c]		2.6/0.11		0/0.00	24/0.39		3.3/0.09			0.1			45[e]	20	22	2	15		
3/15 1315	700	49	11.5	100	76	7.4/7.7	—/0.64[c]		2.9/0.13		0/0.00	35/0.57		3.4/0.10			0.0			59[e]	17	32	3	30		
4/3 1100	1680	52	11.4	103	40	7.5/7.3	—/0.28[c]		2.5/0.11		0/0.00	18/0.30		3.2/0.09			0.0			31[e]	28	14	0	30		
5/10 1300	2660	54	11.1	103	25	7.1/7.5	2.8/0.14	0.4/0.03	1.5/0.07	0.2/0.01	0/0.00	13/0.21	0.6/0.01	1.8/0.05	0.1/0.00	0.0/0.00	0.0	11	PO_4 0.00	24[f]	28	8	0	8		
6/6 1035	1450	58	10.4	102	27	6.9/7.1	—/0.20[c]		1.7/0.07		0/0.00	14/0.23		0.5/0.01			0.0			21[e]	26	10	0	3		
7/5 1130	394	71	8.6	97	38	7.3/7.3	—/0.20[c]		2.5/0.11		0/0.00	17/0.28		3.5/0.10			0.0			29[e]	30	13	0	2		
8/9 1300	408	73	9.0	104	40	7.0/7.0	—/0.24[c]		1.9/0.08		0/0.00	14/0.23		2.0/0.06			0.0			31[e]	25	12	1	20		
9/11 1330	231	68	9.5	104	38	7.3/7.2	5.3/0.26	0.0/0.00	1.7/0.07	0.5/0.01	0/0.00	18/0.30	0.0/0.00	2.6/0.07	0.2/0.00	0.1/0.01	0.1	8.4	As 0.00; ABS 0.0; PO_4 0.15	28[f]/31[g]	21	13	0	5		
10/2 1100	381	63	9.7	100	44	7.2/7.3	—/0.32[c]		2.6/0.11		0/0.00	20/0.33		4.7/0.13			0.1			34[e]	26	16	0	10		
11/7 1335	257	54	11.2	104	52	7.3/7.1	—/0.42[c]		2.9/0.13		0/0.00	24/0.39		2.5/0.07			0.0			40[e]	24	21	1	2		
12/3 1310	886	49	11.3	98	106	7.3/7.4	—/0.89[c]		4.2/0.18		0/0.00	50/0.82		2.3/0.06			0.0			82[e]	17	45	4	4		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ANTELOPE CREEK NEAR MOUTH (STA. 88c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 0.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ANTELOPE CREEK NEAR RED BLUFF (STA. 88e)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.3 / [illegible]	[illegible] / 1.21[c]		11 / 0.48		0 / 0.00	86 / 1.41		11 / 0.31			0.0				28	61	0	2		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.2 / 7.5	[illegible] / .72[c]		2.1 / 0.15		0 / 0.00	39 / 0.64		1.5 / 0.04			0.0				15	36	4	15		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	101	7.3 / 7.7	[illegible] / 0.76[c]		5.2 / 0.23		0 / 0.00	60 / 0.98		3.8 / 0.11			0.1				23	38	0	10		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5 / [illegible]	[illegible] / 1.74[c]		5.7 / 0.24		0 / 0.00	54 / 0.89		3.2 / 0.09			0.3				28	37	0	3		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	81	7.5 / [illegible]	1.0 / 0.50	3.5 / .3[illegible]	4.[illegible] / 0.20	1.1 / 0.03	0 / 0.00	42 / 0.69	1.0 / 0.02	4.[illegible] / 0.11	0.2 / 0.00	0.0 / 0.00	0.0	27	PO_4 0.00	68[f]	24	30	0	2		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	163	[illegible] / 7.7	[illegible] / .58		8.2 / 0.3[illegible]		0 / 0.00	64 / 1.0[illegible]		6.0 / 0.17			0.2				23	44	0	1		
[illegible]	NOT SAMPLED																									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.3	[illegible] / 1.16[c]		13 / 0.57		4 / 0.13	78 / 1.28		11 / 0.31			[illegible]		Tot. Alk. 86		33	58	0	3		
[illegible]	[illegible]	[illegible]	[illegible]	114	170	[illegible] / 8.2	16 / 0.8[illegible]	7.3 / [illegible]	13 / 0.57	1.[illegible] / 0.03	[illegible]	90 / 1.48	1.0 / 0.02	[illegible] / 0.27	0.3 / 0.00	0.0 / 0.00	[illegible]	27	PO_4 0.00	126[f]	32	60	0	4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.2	[illegible] / 1.23[g]		12 / 0.52		0 / 0.00	92 / 1.51		12 / 0.34			[illegible]				30	61	0	1		
[illegible]	[illegible]	[illegible]	10.3	100	182	[illegible] / 8.1	[illegible] / 1.18[c]		11 / 0.48		0 / 0.00	87 / 1.43		7.[illegible] / 0.22			0.0				29	59	0	5		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / 8.0	[illegible] / 0.82[c]		7.[illegible] / 0.32		[illegible] / 0.00	63 / 1.03		4.2 / 0.12			0.0				28	41	0	0.5		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BATTLE CREEK NEAR COTTONWOOD (STA. 88b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/11 [illegible]	[illegible]	47	[illegible]	[illegible]	147	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	11.4	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	114	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	11[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE F-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
BEAR RIVER NEAR MOUTH (STA. 20b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/4 1030	est.	48	13.1	105	160	7.5 / 7.8	1.45[c]		4.2 / 0.18		0 / 0.00	64 / 1.05		6.2 / 0.17			0.0			103[e]	11	71	19	4		USGS
2/3 1315		50	11.1	98	185	7.4 / 8.1	1.61[c]		5.9 / 0.26		0 / 0.00	69 / 1.13		8.5 / 0.24			0.1			119[e]	14	81	24	25		
3/15 1325	900 est.	49	11.7	102	88	7.3 / 7.8	0.74[c]		2.7 / 0.12		0 / 0.00	34 / 0.56		2.6 / 0.07			0.0			57[e]	14	37	9	40		
4/5 0830	400 est.	56	10.1	96	98	7.3 / 7.7	0.84[c]		3.9 / 0.17		0 / 0.00	40 / 0.66		4.5 / 0.13			0.1			63[e]	17	42	9	35		
5/15 0730	5 est.	62	9.6	98	151	7.4 / 7.7	14 / 0.70	5.4 / 0.44	8.3 / 0.36	1.0 / 0.03	0 / 0.00	60 / 0.98	8.0 / 0.17	13 / 0.37	0.2 / 0.00	0.1 / 0.01	0.0	17	PO_4 0.05	97[f]	24	57	8	5		
6/11 0745	Not Sampled - Dry																									
7/2 0750	Ponded	73	6.0	69	426	8.1 / 7.1	2.57[c]		38 / 1.65		0 / 0.00	158 / 2.59		50 / 1.41			0.1			274[e]	39	128	0	10		
8/13 1230	5 est.	83	8.1	104	220	7.6 / 7.8	2.06[c]		7.3 / 0.32		0 / 0.00	105 / 1.72		7.5 / 0.21			0.0			141[e]	13	103	17	2		
9/10 1150	Not Sampled - Dry																									
10/1 1550	Not Sampled - Dry																									
11/1 0905	140 est.	62	8.9	91	131	7.3 / 7.5	1.08[c]		4.8 / 0.21		0 / 0.00	56 / 0.92		4.8 / 0.14			0.0			84[e]	16	54	8	4		
12/3 0955	300 est.	51	10.9	97	121	7.3 / 7.0	1.01[c]		3.9 / 0.17		0 / 0.00	51 / 0.84		4.0 / 0.11			0.0			78[e]	14	50	8	55		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
BEAR RIVER NEAR WHEATLAND (STA. 78)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/4 1330	92	46	13.0	109	159	7.6/7.9	1.38[c]		4.3/0.19		0/0.00	60/0.98		5.5/0.16			0.0			101[e]	12	69	20	4	Median 23. Maximum 2400. Minimum 0.5	USGS
2/8 0745	190	48	11.1	96	185	7.4/8.0	1.63[c]		5.5/0.24		0/0.00	70/1.15		7.7/0.22			0.1			117[e]	13	82	25	8		
3/15 1230	870	47	12.1	102	79	7.3/7.7	0.66[c]		2.6/0.11		0/0.00	30/0.49		3.4/0.10			0.0			50[e]	14	33	8	20		
4/5 0735	500	56	10.2	97	94	7.2/7.5	0.80[c]		3.5/0.15		0/0.00	39/0.64		2.8/0.08			0.0			60[e]	16	40	8	5		
5/15 0630	88	60	9.8	98	110	7.4/7.8	11/0.55	4.7/0.39	3.6/0.16	0.5/0.01	0/0.00	48/0.79	9.0/0.19	3.8/0.11	0.2/0.00	0.0/0.00	0.0	14	ABS 0.0; PO_4 0.00	71[f]	14	47	8	5		
6/11 0645	10	68	8.3	91	192	8.0/8.1	1.73[c]		4.6/0.20		0/0.00	88/1.44		6.3/0.18			0.0			122[e]	10	87	15	8		
7/3 1200	6.0	85	8.4	110	261	8.1/8.1	2.44[c]		7.3/0.32		0/0.00	122/2.00		8.0/0.23			0.0			165[e]	12	122	22	4		
8/13 1300	17	83	8.8	112	230	7.6/7.9	2.08[c]		7.1/0.31		0/0.00	112/1.84		8.0/0.23			0.0			146[e]	13	104	12	3		
9/10 1130	6.4	73	9.5	110	260	7.7/8.1	25/1.25	14/1.17	6.5/0.28	0.4/0.01	0/0.00	126/2.07	22/0.46	9.2/0.26	0.1/0.00	0.2/0.01	0.0	18	As 0.00; ABS 0.0; PO_4 0.25	157[f] / 154[g]	10	121	18	9		
10/1 0745	3.6	67	7.6	82	332	7.6/7.9	3.05[c]		8.6/0.37		0/0.00	150/2.46		15/0.42			0.0			210[e]	11	152	29	15		
11/1 1645	214	64	9.8	103	111	7.3/7.4	0.90[c]		3.8/0.17		0/0.00	47/0.77		3.0/0.08			0.0			70[e]	16	45	6	8		
12/3 0910	4010	51	11.1	99	100	7.3/7.3	0.82[c]		3.2/0.14		0/0.00	43/0.70		4.4/0.12			0.0			63[e]	15	41	6	70		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BIG CREEK ABOVE PINE FLAT DAM (STA. No. 33d)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/62																										
1/2 [illegible]	[illegible]	43	12.0	9[illegible]	130	7.7	11 / 0.55	2.1 / 0.17	12 / 0.52	1.4 / 0.04	0.0 / 0.00	40 / 0.66	8.0 / 0.17	6.0 / 0.15	0.2 / 0.00	0.3 / 0.02	0.1	24		95	41	36	3	3	Median 13. Maximum 230. Minimum 0.23	USGS
2/[illegible] 11[illegible]	11	4[illegible]	11.7	101	97	7.5	c / 0.86		8.7 / 0.38		0.0 / 0.00	34 / 0.56		9.3 / 0.26			0.0				40	28	0	2		
3/5 1115	---	45	10.8	94	86	7.0	c / 0.56		6.4 / 0.28		0.0 / 0.00	37 / 0.61		4.0 / 0.11			0.1				33	28	0	11		
4/2 1100	96	50	10.0	96	65	7.1	c / 0.42		5.5 / 0.24		0.0 / 0.00	30 / 0.49		2.8 / 0.08			0.1				36	21	0	6		
5/1 0940	62	54	7.5	70	62	7.6	4.8 / 0.24	0.5 / 0.04	4.6 / 0.20	0.9 / 0.02	0.0 / 0.00	26 / 0.43	1.0 / 0.02	1.8 / 0.05	0.0 / 0.00	0.2 / 0.01	0.0	19	PO_4 0.50	46	40	14	0	5		
6/4 1100	20	62	7.6	77	71	7.1	c / 0.43		5.9 / 0.26		0.0 / 0.00	35 / 0.57		2.8 / 0.08			0.0				38	22	0	2		
7/2 1[illegible]	8	70	7.0	100	90	7.7	c / 0.54		8.3 / 0.36		0.0 / 0.00	41 / 0.67		6.0 / 0.17			0.0				40	27	0	1		
8/	No sample collected.																									
9/	No sample collected.																									
10/1 1030	--	70	10.4	116	158	7.2	c / 0.92		14 / 0.61		0.0 / 0.00	55 / 0.90		20 / 0.56			0.0				40	46	1	10		
11/5 1130	1	52	10.2	93	138	7.6	c / 0.78		12 / 0.52		0.0 / 0.00	53 / 0.87		15 / 0.42			0.1				40	39	0	1		
12/3 1030	---	48	10.7	93	135	7.3	c / 0.76		11 / 0.48		0.0 / 0.00	52 / 0.85		13 / 0.37			0.0				39	38	0	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BIG CHICO CREEK AT CHICO (STA. 85a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a, 1	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by 1
							Mineral constituents in parts per million / equivalents per million																			
1/11 1[illegible]	[illegible]	4[illegible]	12.8	1[illegible]	1[illegible]	7.[illegible] / 8.1	[illegible] / 1.5[illegible]		13 / 0.57		0 / 0.00	96 / 1.57		12 / 0.34			0.1				27	78	[illegible]	2		USGS
2/[illegible] [illegible]	1,[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.1 / 7.3	[illegible] / 0.48		1.[illegible] / 0.08		0 / 0.00	31 / 0.51		1.6 / 0.05			0.[illegible]				14	2[illegible]	0	5[illegible]		
[illegible] [illegible]	[illegible]	47	11.[illegible]	[illegible]	[illegible]	7.3 / 7.7	[illegible] / 0.80		5.3 / 0.2[illegible]		0 / 0.00	60 / 0.73		3.8 / 0.11			0.1				21	43	[illegible]	3		
[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / .94		7.7 / 0.33		0 / 0.00	[illegible] / 1.1		4.0 / 0.11			0.2				2[illegible]	[illegible]	[illegible]	3		
[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.4[illegible]	11 / .48	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.0[illegible]	[illegible] / .0[illegible]	[illegible] / .25	[illegible] / [illegible]	[illegible] / .1	[illegible] / [illegible]	[illegible]	PO_4 [illegible]	1[illegible]1[illegible]	27	[illegible]	[illegible]	[illegible]		
[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.04		1[illegible] / [illegible]		0 / [illegible]	[illegible] / 1.6[illegible]		[illegible] / 0.2[illegible]			0.2				[illegible]	7[illegible]	[illegible]	[illegible]		
[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		15 / [illegible]		[illegible] / [illegible]	1[illegible] / 1.[illegible]		11 / 0.31			[illegible]		TV. Alk. [illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 1320	DRY																									
9/20 0750	DRY																									
10/17 1330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.[illegible]	[illegible] / 1.14		1.7 / [illegible]		[illegible] / [illegible]	[illegible] / 1.0[illegible]		1.6 / .15			[illegible]				[illegible]	5[illegible]	[illegible]	[illegible]		
11/27 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.[illegible]	[illegible] / 0.7[illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 0.8[illegible]		3.2 / .1[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 1920	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / .7		[illegible] / .17		[illegible] / [illegible]	[illegible] / 0.8[illegible]		1.8 / 0.0[illegible]			0.[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric Determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BIG CHICO CREEK NEAR CHICO (STA. 85)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a / b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							ppm / epm																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.4[illegible]		1[illegible] / 0.[illegible]		[illegible] / [illegible]	[illegible] / 1.5[illegible]		1[illegible] / 0.24			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Max. [illegible] [illegible]	USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		1[illegible] / [illegible]			[illegible]				[illegible]	[illegible]		[illegible]	M. [illegible] 0.62	
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / 7.[illegible]	[illegible] / 0.[illegible]		5.[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 0.[illegible]		[illegible] / 0.09			[illegible]				[illegible]	4[illegible]	[illegible]	3	M. [illegible] 23.	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		7.[illegible] / 0.3[illegible]		[illegible] / [illegible]	[illegible] / 1.[illegible]		3.2 / 0.09			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	5[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	15 / 0.7[illegible]	[illegible] / .51	1 / [illegible]	1.[illegible] / .[illegible]	[illegible] / 0.[illegible]	[illegible] / 1.41	[illegible] / [illegible]	8.8 / 0.25	[illegible] / [illegible]	[illegible] / 0.1	[illegible]	[illegible]	PO_4 [illegible]	122[f]	[illegible]	[illegible]		1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.3[illegible]		13 / [illegible]		[illegible] / [illegible]	[illegible] / 2.[illegible]		9.5 / .27			[illegible]				[illegible]			[illegible]		
[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 5.4	[illegible] / 1.4[illegible]		14 / [illegible]		[illegible] / .13	[illegible] / 1.04		1[illegible] / 0.2[illegible]			[illegible]		Tot. Alk. [illegible]		[illegible]	74		[illegible]		
[illegible]	[illegible]	74	[illegible]	[illegible]	210	8.4 / 8.[illegible]	[illegible] / 1.58		17 / [illegible]		[illegible] / 0.2	104 / 1.7[illegible]		12 / 0.34			[illegible]		T t. Alk. 11[illegible]		[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	214	[illegible] / 8.3	17 / 0.85	8.1 / 0.67	16 / 0.7[illegible]	1.[illegible] / 0.03	[illegible] / 0.13	[illegible] / 1.74	[illegible] / 0.1[illegible]	12 / 0.34	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 0.00 T t. Alk. 11[illegible]	154[f] 14[illegible]	[illegible]	7[illegible]		[illegible]		
[illegible]/17 [illegible]	[illegible]	54	11.0	100	114	7.4 / 7.5	[illegible] / 0.46		7.[illegible] / [illegible].34		0 / [illegible]	58 / [illegible].45		4.0 / [illegible].11			[illegible].1				[illegible]	4[illegible]		[illegible]		
[illegible] 2[illegible]	22[illegible]	52	11.4	[illegible]	102	7.5 / [illegible]	[illegible] / 0.6[illegible]		5.5 / 2.24		0 / [illegible]	[illegible] / [illegible]		3.2 / 0.09			[illegible]				[illegible]	[illegible]				
12 18 1355	[illegible]	53	11.2	103	7[illegible]	7.4 / 7.6	[illegible] / 0.64		3.[illegible] / 0.15		0 / 0.0[illegible]	45 / [illegible].74		1.8 / 0.[illegible]5			[illegible]				1[illegible]	[illegible]	[illegible]	7		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

BUTTE CREEK NEAR CHICO (STA. 84)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]	[illegible] / [illegible]		[illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				12	57	0	1	Maximum [illegible]	USGS
[illegible]	[illegible]	[illegible]	11.1	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				12	[illegible]	0	140	Minimum 0.23	
[illegible]	[illegible]	[illegible]	11.	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				12	[illegible]	2	3	Median [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	PO_4 [illegible]	59[f]	17	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				25	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				19	44	[illegible]	3		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				1[illegible]	[illegible]	[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	21	PO_4 [illegible]	7[illegible][f] 8[illegible]	15	45	3	4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				13	[illegible]	3	4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				13	37	3	15		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				11	[illegible]	[illegible]	2		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CACHE CREEK NEAR CAPAY (STA. 80)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/4 0835	45	46	11.3	95	796	8.3/8.2	4.94[c]		74/3.22		0/0.00	266/4.36		111/3.13			3.2			443[e]	40	247	29	2	Median 23. Maximum 620. Minimum 2.1	USGS
2/1 0700	62	46	10.6	89	723	7.9/8.3	4.58[c]		63/2.74		4/0.13	244/4.00		93/2.62			2.9			402[e]	37	229	23	4		
3/5 1300	590	50	10.5	92	487	8.2/8.3	3.58[c]		35/1.52		3/0.10	196/3.21		38/1.07			1.2			271[e]	30	179	13	30		
4/3 0730	282	58	9.9	97	524	8.0/8.4	4.00[c]		39/1.70		8/0.27	214/3.51		41/1.16			1.1			291[e]	30	200	11	3		
5/2 0630	414	64	8.8	92	414	8.3/8.2	29/1.45	19/1.59	28/1.22	2.5/0.06	0/0.00	203/3.33	12/0.25	24/0.68	1.0/0.02	0.1/0.01	1.3	10	ABS 0.0; PO_4 0.00	2.27[f]	28	152	0	10		
6/5 0640	390	65	8.3	88	368	8.3/8.2	3.00[c]		20/0.87		0/0.00	191/3.13		18/0.51			1.1			205[e]	22	150	0	3		
7/5 0955	366	75	7.8	92	344	7.6/8.2	2.84[c]		19/0.83		0/0.00	186/3.05		14/0.39			1.0			191[e]	23	142	0	10		
8/2 0955	340	75	8.5	100	340	8.3/8.2	2.89[c]		18/0.78		0/0.00	195/3.20		16/0.45			1.1			189[e]	21	145	0	7		
9/4 0950	218	70	9.1	102	369	8.3/8.0	29/1.45	19/1.59	21/0.91	2.4/0.06	0/0.00	207/3.39	7.0/0.15	16/0.45	1.8/0.03	0.1/0.01	1.1	14	As 0.00; ABS 0.0; PO_4 0.55	213[f]/200[g]	23	152	0	15		
10/1 0925	77	66	9.0	96	472	8.3/7.9	3.49[c]		37/1.61		0/0.00	236/3.87		34/0.96			1.2			262[e]	32	175	0	3		
11/1 1020	47	63	9.5	98	765	8.3/8.5	5.14[c]		68/2.96		22/0.73	250/4.10		102/2.88			3.1			425[e]	37	257	16	1		
12/4 1355	285	56	10.5	100	621	8.3/8.4	4.21[c]		56/2.44		7/0.23	241/3.95		69/1.95			3.9			345[e]	37	210	1	10		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE 9-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CACHE CREEK NEAR LOWER LAKE (STA. 42)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/4 1140	1.3	44	11.0	90	274	7.5 / 8.0	2.58[c]		12 / 0.52		0 / 0.00	152 / 2.49		6.5 / 0.18			0.7			152[e]	17	129	4	20	Median 23. Maximum >7000. Minimum 0.13	USGS
2/1 0950	3.1	42	11.1	88	291	7.5 / 8.0	2.58[c]		13 / 0.57		0 / 0.00	148 / 2.43		9.5 / 0.27			0.6			162[e]	18	129	8	4		
3/6	Not Sampled																									
4/3 1010	5.8	57	9.9	9[illegible]	293	7.9 / 8.1	2.64[c]		13 / 0.57		0 / 0.00	166 / 2.72		7.0 / 0.20			1.0			163[e]	18	132	0	8		
5/2 0935	335	6[illegible]	9.0	96	288	7.7 / 7.8	24 / 1.20	17 / 1.36	12 / 0.52	2.3 / 0.06	0 / 0.00	162 / 2.66	8.6 / 0.18	7.0 / 0.20	0.7 / 0.01	0.2 / 0.01	1.0	7.4	PO_4 0.10; ABS 0.0	160[f]	17	128	0	10		
6/5 0915	[illegible]	65	8.9	94	286	8.1 / 8.1	2.55[c]		12 / 0.52		0 / 0.00	165 / 2.70		7.2 / 0.20			1.0			159[e]	17	127	0	30		
7/5 1240	444	80	7.5	93	287	8.2 / 8.1	2.56[c]		13 / 0.57		0 / 0.00	167 / 2.74		8.0 / 0.23			0.8			159[e]	18	128	0	25		
8/2 1240	[illegible]	80	7.[illegible]	94	295	8.2 / 8.0	2.67[c]		12 / 0.52		0 / 0.00	178 / 2.92		4.0 / 0.25			0.9			164[e]	16	134	0	7		
9/4 1315	[illegible]	77	7.8	9[illegible]	311	8.5 / 7.9	26 / 1.30	18 / 1.46	14 / 0.61	2.5 / 0.06	0 / 0.00	192 / 3.15	9.0 / 0.19	7.2 / 0.20	0.2 / 0.00	0.0 / 0.00	0.8	13	As 0.01; ABS 0.0; PO_4 0.00	186[f] / 178[g]	18	138	0	15		
10/1 1145	45	68	8.5	93	327	8.1 / 7.5	2.82[c]		24 / 1.04		0 / 0.00	198 / 3.25		8.2 / 0.23			1.0			181[e]	27	141	0	15		
11/1 1250	[illegible].7	59	8.0	73	238	7.5 / 7.5	2.04[c]		11 / 0.48		0 / 0.00	128 / 2.10		5.5 / 0.16			0.6			132[e]	19	102	0	10		
12/4 1150	2.8	5[illegible]	10.1	91	277	7.5 / 7.6	2.32[c]		13 / 0.57		0 / 0.00	141 / 2.31		9.7 / 0.27			0.7			154[e]	20	116	0	9		

a Field pH.
b Laboratory pH.
c Sum of calcium and magnesium in epm.
d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.
e Derived from conductivity vs TDS curves.
f Determined by addition of analyzed constituents.
g Gravimetric determination.
h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Torrance Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CACHE CREEK, NORTH FORK NEAR LOWER LAKE (STA. 79)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1952																										
1/4 1045	24	48	14.5	125	556	7.9/8.4	4.08[c]		42/1.83		6/0.20	212/3.47		58/1.64			4.4			315[e]	31	204	20	2	Median 13. Maximum 230. Minimum 0.23	USGS
2/1 0955	43	42	11.6	92	471	7.9/8.2	3.45[c]		34/1.48		0/0.00	205/3.36		42/1.18			3.0			267[e]	30	172	4	3		
3/4 1200	2660	47	11.0	93	143	8.0/7.8	1.28[c]		5.7/0.25		0/0.00	76/1.25		3.5/0.10			0.2			81[e]	16	64	2	120		
4/3 0930	190	55	10.4	98	275	7.9/8.3	2.52[c]		14/0.61		2/0.07	146/2.39		10/0.28			1.6			156[e]	19	126	3	2		
5/2 0830	59	63	9.9	102	396	8.1/8.2	31/1.55	21/1.73	22/0.96	1.2/0.03	0/0.00	202/3.31	13/0.27	22/0.62	0.3/0.00	0.0/0.00	1.8	17	PO_4 0.00	229[f]	22	164	0	1		
6/5 0830	24	64	10.5	110	471	8.4/8.5	3.73[c]		31/1.35		10/0.33	207/3.39		37/1.04			2.5			267[e]	27	187	0	2		
7/5 1130	2.1	81	9.2	115	497	7.5/8.5	3.72[c]		37/1.61		12/0.40	195/3.20		46/1.30			3.6			282[e]	30	186	6	3		
8/2 1135	2.3	82	9.3	118	531	8.3/8.4	3.92[c]		44/1.91		7/0.23	212/3.47		57/1.61			4.2			301[e]	33	196	9	3		
9/4 1155	1.5	80	11.3	140	562	8.4/8.5	35/1.75	27/2.23	48/2.09	1.9/0.05	18/0.60	193/3.16	19/0.40	63/1.78	0.4/0.01	0.1/0.01	4.2	19	PO_4 0.00	331[f]/322[g]	34	199	11	2		
10/1 1050	1.6	68	10.7	117	542	8.3/8.2	3.77[c]		44/1.91		0/0.00	226/3.70		56/1.58			3.9			307[e]	34	188	3	10		
11/1 1155	26	62	11.3	116	631	8.5/8.4	4.58[c]		49/2.13		12/0.40	245/4.02		70/1.97			5.2			358[e]	32	229	8	1		
12/4 1240	185	56	10.7	102	331	7.9/8.2	2.46[c]		23/1.00		0/0.00	163/2.67		25/0.71			2.3			188[e]	29	123	0	2		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CACHE SLOUGH BELOW LINDSEY SLOUGH (STA. 110a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
							equivalents per million																			
1962	Tidal																									[illegible]
1/23 0955		44			206				15					11						160	32					
4/20 1040		61			130				9.2					8.5						104	40					
7/18 1130		73			184				14					13						145	33					
10/15 1145		64			216				17					18						208	[illegible]					

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CALAVERAS RIVER AT JENNY LIND (STA. 16a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/11 [illegible]	[illegible]	44	10.8	88	364	7.6 / 8.1	— / 3.21[c]		12 / 0.52		0 / 0.00	125 / 2.05		16 / 0.45			0.1			224[e]	14	160	58	4	Median 9.5 Maximum 2400. Minimum 0.23	USGS
2/18 1000	3710	52	10.8	98	131	7.2 / 7.7	— / 1.13[c]		4.3 / 0.19		0 / 0.00	54 / 0.89		3.6 / 0.10			0.1			81[e]	14	57	13	60		
3/8 1015	2640	53	11.5	105	130	7.6 / 7.5	— / 1.06[c]		4.8 / 0.21		0 / 0.00	56 / 0.92		4.4 / 0.12			0.0			80[e]	17	53	7	30		
4/4 1005	5.3	64	7.6	80	361	7.4 / 8.5	— / 3.21[c]		15 / 0.65		9 / 0.30	140 / 2.29		21 / 0.59			0.2			222[e]	17	161	31	1		
5/7 0950	2.0	75	11.4	132	342	8.2 / 8.2	37 / 1.85	14 / 1.19	14 / 0.61	2.6 / 0.07	0 / 0.00	160 / 2.62	29 / 0.60	14 / 0.39	0.1 / 0.00	0.2 / 0.01	0.0	16	PO_4 0.00	207[f]	16	152	21	2		
6/15 0830	257	64	9.8	103	201	7.4 / 8.0	— / 1.80[c]		6.7 / 0.29		0 / 0.00	102 / 1.67		5.0 / 0.14			0.0			124[e]	14	90	6	10		
7/9 1025	1.[illegible]	80	7.8	97	247	7.4 / 8.1	— / 2.22[c]		8.7 / 0.38		0 / 0.00	129 / 2.11		7.0 / 0.20			0.1			152[e]	15	111	5	3		
8/1 1145	Not Sampled - Dry																									
9/5 1235	Not Sampled - Dry																									
10/2 1050	Not Sampled - Dry																									
11/13 1135	37	60	8.5	85	354	7.5 / 8.0	— / 3.11[c]		12 / 0.52		0 / 0.00	161 / 2.64		16 / 0.45			0.0			218[e]	14	155	23	1		
12/6 1045	3.2	52	7.7	70	343	7.3 / 8.1	— / 3.03[c]		12 / 0.52		0 / 0.00	152 / 2.49		16 / 0.45			0.1			209[e]	15	152	27	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CALAVERAS RIVER NEAR STOCKTON (STA. 16b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/11 1015	Not Sampled - Dry																								Median 62. Maximum 2400. Minimum 23.	USGS
2/15 1120	4300	52	10.3	93	129	7.9 / 7.1	1.04[c]		4.2 / 0.18		0 / 0.00	49 / 0.80		3.8 / 0.11			0.1			83[e]	15	52	12	80		
3/8 1125	2340	52	11.5	104	127	7.1 / 7.5	1.14[c]		3.9 / 0.17		0 / 0.00	57 / 0.93		3.4 / 0.10			0.1			81[e]	13	57	10	150		
4/4 1110	3.4	64	9.2	96	83	7.4 / 7.7	0.55[c]		5.1 / 0.22		0 / 0.00	32 / 0.25		9.0 / 0.25			0.2			53[e]	29	27	1	25		
5/7 1200	Not Sampled - Dry																									
6/5 1000	5.6	68	8.9	98	214	7.5 / 7.9	1.80[c]		7.3 / 0.32		0 / 0.00	103 / 1.69		8.0 / 0.23			0.0			137[e]	15	90	6	20		
7/9 1200	Not Sampled - Dry																									
8/1 1400	Not Sampled - Dry																									
9/5 1330	Not Sampled - Dry																									
10/2 1135	Not Sampled - Dry																									
11/13 1305	Not Sampled - Dry																									
12/5 1300	Not Sampled - Dry																									

a Field pH.
b Laboratory pH.
c Sum of calcium and magnesium in epm.
d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.
e Derived from conductivity vs TDS curves.
f Determined by addition of analyzed constituents.
g Gravimetric determination.
h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

CHOWCHILLA RIVER AT BUCHANAN DAM SITE (STA. NO. 114)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/ 1230	[illegible]	[illegible]	[illegible]	106	714	8.2	3.74[c]		69 / 3.00		0.0 / 0.00	108 / 1.77		161 / 4.54			0.1				45	187	[illegible]	4	Median 6.2 Maximum 62. Minimum 0.62	USGS
2/ 1235	[illegible]	53	[illegible]	[illegible]	462	7.9	2.47[c]		42 / 1.83		0.0 / 0.00	98 / 1.61		86 / 2.43			0.0				42	124	44	10		
3/5 1045	19[e] est.	52	10.2	93	154	7.7	0.98[c]		11 / 0.48		0.0 / 0.00	61 / 1.00		12 / 0.34			0.1				33	49	0	9		
4/7 1205	---	71	[illegible]	99	167	8.0	1.04[c]		14 / 0.61		0.0 / 0.00	73 / 1.20		13 / 0.37			0.0				37	52	0	3		
5/7 1210	[illegible]	75	8.6	101	197	8.0	17 / 0.85	3.8 / 0.31	18 / 0.78	2.2 / 0.06	0.0 / 0.00	79 / 1.29	3.0 / 0.06	20 / 0.56	0.1 / 0.00	0.2 / 0.01	0.0	32	PO_4 0.10	135	39	58	0	3		
6/7 1345	[illegible]	84	7.4	94	245	8.1	1.34[c]		22 / 0.96		0.0 / 0.00	87 / 1.43		33 / 0.93			0.0				42	67	0	15		
7/12 1210	--	79	8.0	98	859	7.9	4.16[c]		85 / 3.70		0.0 / 0.00	114 / 1.87		209 / 5.90			0.1				47	208	115	10		
8/	No sample collected.																									
9/	No sample collected.																									
10/	No sample collected.																									
11/6 1345	--	65	10.1	107	640	8.0	3.40[c]		54 / 2.35		0.0 / 0.00	119 / 1.95		136 / 3.84			0.0				41	170	72	1		
12/6 1235	2	50	10.8	96	628	8.0	3.27[c]		56 / 2.44		0.0 / 0.00	112 / 1.54		137 / 3.86			0.0				43	163	71	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5)

CLEAR CREEK NEAR IGO (STA. 12d)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/	pH b/	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
								Mineral constituents in parts per million / equivalents per million																			
1/11 11[illegible]	1[illegible]	[illegible]	12.4	[illegible]	12[illegible]	7.0 / 7.[illegible]	0.86[c]			6.4 / 0.2[illegible]		0 / 0.00	45 / 0.74		8.7 / 0.2[illegible]			0.0				2[illegible]	43	6	2		USGS
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	9[illegible]	7.1 / 7.1	1.4[illegible]			2.8 / 0.12		0 / 0.00	2[illegible] / 0.4[illegible]		1.2 / 0.03			0.0				2[illegible]	2[illegible]	3	14[illegible]		
[illegible]	[illegible]	4[illegible]	12.1	[illegible]	7[illegible]	7.[illegible] / 7.4	[illegible]			3.2 / 0.14		0 / 0.00	4[illegible] / 0.[illegible]		2.5 / 0.07			0.[illegible]				2[illegible]	2[illegible]	2	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible] / 7.7	0.56			3.7 / 0.1[illegible]		[illegible] / 0.00	2[illegible] / 0.4[illegible]		3.9 / 0.11			[illegible]				2[illegible]	2[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 0.14	[illegible] / 0.[illegible]	4.5 / [illegible]	[illegible] / 0.0[illegible]	0 / 0.00	[illegible] / [illegible]	6.[illegible] / 0.[illegible]	4.8 / 0.14	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]			5.2 / 0.2[illegible]		[illegible] / [illegible]	4[illegible] / [illegible]		5.8 / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]			[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
8/3 1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]			[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		21 / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
9/14 0825	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	18 / .9	[illegible] / [illegible]	[illegible] / 0.7[illegible]	1.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.11	11 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	11	PO_4 [illegible]	101[f] 12[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
10/2 0900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.[illegible]	1.1[illegible]			1[illegible] / [illegible]		0 / 0.00	[illegible] / 1.0[illegible]		[illegible] / 0.5[illegible]			0.0				[illegible]	5[illegible]	[illegible]	[illegible]		
11/2 1030	[illegible]	[illegible]	[illegible]	[illegible]	14[illegible]	7.4 / 7.[illegible]	1.1[illegible]			[illegible] / [illegible]		0 / 0.0[illegible]	[illegible] / [illegible]		1[illegible] / 0.2[illegible]			0.1				[illegible]	[illegible]	[illegible]	[illegible]		
12/7 0930	[illegible]	[illegible]	11.9	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]			[illegible] / [illegible]		0 / 0.00	[illegible] / [illegible]		[illegible] / 0.1[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
CLEAR LAKE AT LAKEPORT (STA. 41)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]																										
[illegible] 1300		50	8.8	77	281	7.4 / 8.1	/ 2.72[c]		11 / 0.48		0 / 0.00	156 / 2.56		6.2 / 0.17			0.7			[illegible]	15	136	8	20	Median 2.4 Maximum 7000. Minimum [illegible]	USGS
[illegible] 1120		45	10.8	[illegible]	288	7.1 / 8.0	/ 2.59[c]		12 / 0.52		0 / 0.00	163 / 2.67		9.0 / 0.25			0.9			166[e]	17	129	0	15		
3/6 1405		46	10.2	85	232	8.1 / 8.1	/ 2.04[c]		9.3 / 0.40		0 / 0.00	127 / 2.08		5.5 / 0.16			0.6			135[e]	16	102	0	25		
[illegible] 1130		62	10.9	12[illegible]	[illegible]	8.1 / 8.3	/ 2.20[c]		11 / 0.48		1 / 0.03	136 / 2.[illegible]		5.0 / 0.14			0.7			139[e]	18	110	0	13		
[illegible] 1100		65	9.6	95	[illegible]	[illegible] / 7.8	22 / 1.10	15 / 1.20	11 / 0.48	1.9 / 0.05	0 / 0.00	144 / 2.36	8.8 / 0.18	5.9 / 0.17	1.0 / 0.02	0.2 / 0.01	0.8	11	PO_4 0.10; ABS 0.0	149[f]	17	115	0	8		
6/5 1010		68	9.1	100	264	8.4 / 8.0	/ 2.37[c]		11 / 0.48		0 / 0.00	147 / 2.41		6.6 / 0.19			0.9			152[e]	17	118	0	20		
7/5 1405		75	8.1	96	277	8.3 / 8.0	/ 2.44[c]		12 / 0.52		0 / 0.00	162 / 2.66		7.5 / 0.21			0.8			159[e]	18	122	0	35		
8/2 1400		82	7.8	99	284	8.1 / 8.2	/ 2.60[c]		13 / 0.57		0 / 0.00	173 / 2.84		9.1 / 0.26			1.0			163[e]	18	130	0	4		
9/4 1510		78	15.0	182	286	/ 8.2	26 / 1.30	18 / 1.34	13 / 0.57	2.4 / 0.06	0 / 0.00	182 / 2.98	9.0 / 0.19	6.0 / 0.17	0.1 / 0.00	0.1 / 0.01	0.9	18	As 0.00; ABS 0.0; PO_4 0.30	182[f] / 168[g]	17	132	0	35		
10/1 1310		77	14.7	177	308	/ 7.7	/ 2.86[c]		14 / 0.61		0 / 0.00	172 / 2.82		8.3 / 0.23			0.1			177[e]	18	143	2	20		
11/1 1400		68	4.6	50	291	7.3 / 8.0	/ 2.58[c]		12 / 0.52		0 / 0.00	172 / 2.82		6.2 / 0.17			1.0			167[e]	17	129	0	25		
12/4 0955		54	7.8	72	289	[illegible] / 7.8	/ 2.59[c]		12 / 0.52		0 / 0.00	169 / 2.77		8.4 / 0.24			0.8			166[e]	17	127	0	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE F-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COLUSA TROUGH NEAR COLUSA (STA. 87)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a	pH b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
								Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		107 / [illegible]		[illegible]	[illegible]		115 / 3.24			[illegible]				55	2[illegible]	4[illegible]	45	Maximum 7,[illegible]	USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0 / [illegible]	[illegible]		17 / .48			[illegible]				53	7[illegible]	[illegible]	4[illegible]	Minimum 0.4	
[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				53	[illegible]	[illegible]	1[illegible]	Median [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				44	15[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	PO_4 [illegible]	25[illegible][f]	[illegible]	1[illegible]	[illegible]	[illegible]		
[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		2 / [illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]				
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		53 / 2.31		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]				[illegible]	[illegible]		1[illegible]		
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		49 / 2.13		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]				4[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	675 (est.)	70	7.4	82	513	7.6	8.3	29 / 1.45	20 / 1.63	57 / 2.48	2.0 / 0.05	5 / 0.17	203 / 3.33	57 / 1.19	28 / 0.79	1.6 / 0.03	0.2 / 0.01	0.2	21	Tot. Alk. 213 PO_4 0.40	321[i] 353[g]	44	154		[illegible]		
[illegible]	No [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible] / [illegible]		[illegible]	[illegible]		48 / 1.35			[illegible]				51	176	[illegible]	[illegible]		
[illegible]	154	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		150 / 1.52		[illegible]	[illegible]	100 / 2.81	[illegible] / 2.79			[illegible]				[illegible]	[illegible]	14	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		40 / 1.72		[illegible]	[illegible]	[illegible] / 2.81	[illegible] / 1.38			[illegible]				57	14[illegible]	12	3[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO.5)

CONTRA COSTA CANAL AT 1st PUMP LIFT (STA. 109a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/22 1335		42			980	7.4	59	34	90	3.9	0.0	115	169	138	14					674	40					USBR
2/12 1400		52			941	7.6	56	33	90	3.9	0.0	115	160	146	9.3		0.54			620	41					
3/12 1525		54			742	7.4	36	22	73	2.7	0.0	109	116	95	4.3					480	46					
4/18 1000					436	8.1	22	13	42	1.6	0.0	80	56	55	1.2					288	45					
5/16 1245		64			213	6.8	12	7.8	18	1.6	0.0	54	21	20	0.62					144	38					
6/18 0920		73			252	7.4	15	7.2	18	1.3	0.0	68	24	26	0.0					130	36					
7/16 1500		77			222	7.6	14	8	18	1.2	0.0	68	24	22	0.62					152	36					
8/20 1205		77			339	7.8	14	12	35	1.6	0.0	76	29	48	0.0					228	47					
9/20 0940		70			465	7.6	22	11	51	2.3	0.0	80	32	84	0.0					260	51					
10/17 1120		62			406	7.5	22	13	44	2.0	0.0	96	44	58	1.2					252	47					
11/14 1115		59			565	7.5	24	19	55	2.3	0.0	108	58	82	1.9					324	46					
12/17 1355		54			674	7.6	32	18	75	2.3	0.0	115	72	114	1.2					408	51					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
COSUMNES RIVER AT McCONNELL (STA. 94a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1967																										
1/3 1045	3.0	[illegible]	11.9	97	104	[illegible]/7.5	0.84[c]		[illegible]/0.17		0/0.00	49/0.80		4.5/0.13			0.0			78[e]	17	42	2	3	Median 78. Maximum 230. Minimum 2.3	USGS
2/4 1130	19	40	11.9	100	104	7.4/7.7	0.84[c]		4.8/0.21		0/0.00	45/0.74		3.1/0.09			0.0			71[e]	20	[illegible]	[illegible]	6		
3/5 1330	110	53	10.9	100	116	7.3/7.7	0.93[c]		5.1/0.22		0/0.00	52/0.85		3.8/0.11			0.0			87[e]	19	46	3	15		
4/7 1110	194	57	10.3	96	59	7.[illegible]/7.5	0.44[c]		3.5/0.15		0/0.00	29/0.48		1.5/0.04			0.0			44[e]	25	22	0	32		
5/10 0945	510	62	9.4	96	42	7.1/7.4	4.8/0.24	0.7/0.06	2.2/0.10	0.7/0.02	0/0.00	22/0.36	0.0/0.00	2.0/0.06	0.0/0.00	0.1/0.01	0.0	1[illegible]	ABS 0.0; PO_4 0.00	3[f]	[illegible]	15	0	[illegible]		
6/6 1445	124	76	8.6	105	48	7.1/7.2	0.37[c]		2.3/0.10		0/0.00	25/0.41		1.8/0.05			0.0			36[e]	21	18	0	2		
7/5 1400	Not Sampled - Dry																									
8/8 1400	Not Sampled - Dry																									
9/11 1400	Not Sampled - Dry																									
10/9 1330	Not Sampled - Dry																									
11/8 1400	16	60	10.5	105	134	7.4/7.8	1.03[c]		5.3/0.23		0/0.00	69/1.13		2.8/0.08			0.0			100[e]	18	54	0	5		
12/6 1340	74	50	11.2	99	116	7.3/7.8	0.95[c]		4.9/0.21		0/0.00	58/0.95		4.6/0.13			0.1			87[e]	18	47	0	8		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
COSUMNES RIVER AT MICHIGAN BAR (STA. 94)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/8 1230	23	49	12.4	108	93	7.5/7.7	—/0.80[c]		3.7/0.16		0/0.00	40/0.66		3.2/0.09			0.0			69[e]	17	40	17	2	Median 23. Maximum >7000. Minimum 0.23	USGS
2/4 1305	39	48	11.8	101	99	7.5/7.8	—/0.81[c]		4.1/0.18		0/0.00	42/0.69		3.8/0.11			0.1			73[e]	18	41	7	5		
3/5 1430	510	52	11.4	103	112	7.5/7.8	—/0.91[c]		4.6/0.20		0/0.00	49/0.80		1.8/0.05			0.0			83[e]	18	45	5	3		
4/4 1315	810	56	10.3	98	54	7.5/7.5	—/0.40[c]		2.7/0.12		0/0.00	27/0.44		2.0/0.06			0.0			40[e]	23	20	0	3		
5/10 0700	545	59	10.2	101	38	7.1/7.5	4.4/0.22	0.7/0.06	2.2/0.10	0.9/0.02	0/0.00	20/0.33	1.0/0.02	2.0/0.06	0.0/0.00	0.1/0.01	0.1	15	PO_4 0.00	36[f]	25	14	0	5		
6/6 1345	210	69	9.6	106	42	7.1/7.2	—/0.30[c]		2.0/0.09		0/0.00	22/0.36		2.1/0.06			0.0			31[e]	23	15	0	1		
7/5 1310	47	82	8.7	110	64	7.6/8.1	—/0.52[c]		3.6/0.16		0/0.00	35/0.57		1.0/0.03			0.0			47[e]	24	26	0	2		
8/9 1040	17	78	8.9	108	90	7.5/7.3	—/0.62[c]		4.1/0.18		0/0.00	39/0.64		3.0/0.08			0.0			67[e]	22	31	0	2		
9/11 1500	15	76	9.8	117	97	7.6/7.9	8.6/0.43	4.3/0.35	4.4/0.19	1.1/0.03	0/0.00	51/0.84	3.0/0.06	2.0/0.06	0.2/0.00	0.0/0.00	0.0	16	As 0.00; ABS 0.0; PO_4 0.05	65[f]/66[g]	19	39	0	10		
10/2 1245	4.3	74	10.0	117	100	7.6/7.9	—/0.82[c]		5.1/0.22		0/0.00	56/0.92		4.1/0.12			0.0			74[e]	21	41	0	2		
11/7 1540	42	62	10.3	106	129	7.5/7.8	—/1.08[c]		5.0/0.22		0/0.00	64/1.05		3.5/0.10			0.0			96[e]	17	54	2	5		
12/6 1430	90	50	11.2	99	111	7.3/7.7	—/0.92[c]		4.7/0.20		0/0.00	56/0.92		4.6/0.13			0.0			82[e]	18	46	0	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5)

COTTONWOOD CREEK NEAR COTTONWOOD (STA. 12b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in ppm / equivalents per million																			
1/11 1950	120	48	11.[illegible]	[illegible]	270	7.[illegible] / 7.[illegible]	[illegible] / 2.27		12 / 0.52		[illegible] / [illegible]	11[illegible] / [illegible]		1[illegible] / [illegible]			[illegible]					[illegible]	[illegible]	[illegible]	Max. [illegible] 2,400.	U.K.
[illegible] 1000	2,600	51	10.2	91	172	7.[illegible] / 7.[illegible]	[illegible] / 1.5[illegible]		8.[illegible] / 0.5[illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 1.1[illegible]			[illegible]				[illegible]	[illegible]			M. [illegible] 0.23	
3/14 1000	[illegible]	4[illegible]	[illegible]	[illegible]	2[illegible]	[illegible] / [illegible]	[illegible] / 2.[illegible]		9.0 / 0.39		[illegible] / [illegible]	11[illegible] / [illegible]		7.[illegible] / [illegible]			[illegible]				[illegible]	[illegible]			Median 52.	
4/11 1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	177	[illegible] / [illegible]	[illegible] / 1.[illegible]		6.4 / 0.2[illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible] 1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	PO[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 1[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]		[illegible]		
[illegible] 1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / 0.40		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]				
[illegible] 1[illegible]	[illegible]	[illegible]	1[illegible]	1[illegible]	17[illegible]	7.[illegible] / [illegible]	[illegible] / 1.4[illegible]		9.1 / 0.40		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]				
[illegible] 1[illegible]	58	7[illegible]	[illegible]	1[illegible]	17[illegible]	7.[illegible] / [illegible]	1[illegible] / [illegible]	[illegible] / [illegible]	8.[illegible] / 0.37	1.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]	5.[illegible] / [illegible]	4.[illegible] / .11	.1 / [illegible]	0.1 / [illegible]	[illegible] / [illegible]	.[illegible]	PO[illegible] [illegible]	11[illegible] 1[illegible]	[illegible]	[illegible]				
1[illegible]/0 1158	[illegible]	[illegible]	11.[illegible]	1[illegible]	170	7.4 / [illegible]	[illegible] / 1.42		[illegible] / 0.37		[illegible] / 0.0	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]				
[illegible] 1[illegible]	12[illegible]	57	10.[illegible]	10[illegible]	2[illegible]	[illegible] / [illegible]	[illegible] / 2.1[illegible]		[illegible] / [illegible]		[illegible] / [illegible]	1[illegible] / [illegible]		1[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]				
1[illegible] 12[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		1 / [illegible]	1[illegible] / [illegible]		1[illegible] / .2[illegible]			[illegible] / [illegible]		Tot. Alk. 128		[illegible]	[illegible]				

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COTTONWOOD CREEK BELOW NORTH FORK COTTONWOOD CREEK (STA. 11a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 1.45		[illegible] / [illegible]			0.0				17	[illegible]	10	2		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	51 / 1.33		[illegible] / [illegible]			[illegible]				26	[illegible]	[illegible]	25		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / 0.25		[illegible] / 0.00	1.6 / 1.74		[illegible] / 0.11			0.0				13	[illegible]	5	15		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 1.44		1.4 / [illegible]			[illegible]				11	77	[illegible]	2		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	11 / [illegible]	1.7 / 0.05	1.0 / 0.03	[illegible] / 0.00	11.2 / 1.85	[illegible] / 0.17	[illegible] / 0.14	[illegible] / 0.00	0.1 / 0.01	0.0	19	PO_4 0.00	128[f]	11	[illegible]	3	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		1.7 / [illegible]		[illegible] / 0.00	128 / 2.10		[illegible] / [illegible]			[illegible]				12	103		2		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		1.1 / 0.35		[illegible] / 0.00	127 / [illegible]		[illegible] / 0.24			0.0				14	[illegible]	0	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 2.32		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		10 / [illegible]			0.0				16	114	0	2		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.2 / [illegible]	[illegible] / 1.4	1.[illegible] / 1.24	[illegible] / [illegible]	1.1 / [illegible]	[illegible] / 0.00	1.4 / 2.44	1.7 / .19	16 / [illegible]	0.0 / 0.00	0.0 / 0.00	0.0	21	PO_4 0.00	170[f] 169[g]	16	122	0	5		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		1.[illegible] / [illegible]		[illegible] / [illegible]	1.28 / [illegible]		20 / 0.[illegible]			0.0				22	111	3	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.2 / [illegible]	[illegible] / [illegible]		[illegible] / 0.[illegible]		2 / 0.[illegible]	1.4 / 2.33		2.5 / 0.27			0.2				15	117	1	1		
[illegible]	[illegible]	[illegible]	12.[illegible]	[illegible]	[illegible]	7.2 / [illegible]	[illegible] / [illegible]		6.[illegible] / 0.39		2 / 0.07	1.26 / 2.23		7.1 / 0.2[illegible]			0.0		Tot. Alk. 140		13	117	2	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COTTONWOOD CREEK, SOUTH FORK ABOVE COTTONWOOD CREEK (STA. 11b)

Date and time sampled P.S.T.	Discharge in cfs Est. by Sampler	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/11 1205	13	45	12.2	101	423	7.5 / 8.1	3.22[c]		22 / 0.96		0.0 / 0.00	137 / 2.25		46 / 1.30			0.0				[illegible]	1[illegible]1	4[illegible]	1		USGS
2/9 1205	200+	51	10.3	[illegible]	166	7.7 / 7.5	1.35[c]		8.7 / 0.38		0.0 / 0.00	71 / 1.16		7.6 / 0.21			0.0				[illegible]	[illegible]	[illegible]	[illegible]		
3/14 1320	125	53	10.6	[illegible]	387	7.4 / 8.1	3.36[c]		19 / 0.83		0.0 / 0.00	177 / 2.[illegible]		18 / 0.51			0.0				[illegible]	[illegible]	[illegible]	[illegible]		
4/11 1540	15[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	7.9 / 8.2	1.24[c]		8.3 / 0.36		0.0 / 0.00	[illegible] / 1.56		7.8 / 0.22			0.0				[illegible]	[illegible]	[illegible]	[illegible]		
5/3 1[illegible]	100	77	[illegible]	[illegible]	283	8.1 / 8.3	27 / 1.35	6.4 / 0.53	9.7 / 0.42	1.0 / 0.03	2 / 0.07	107 / 1.75	12 / 0.25	10 / 0.28	[illegible] / 0.00	0.1 / 0.01	0.0	14	PO_4 0.00 Tot. Alk. 110	134[f]	1[illegible]	[illegible]	4	[illegible]		
[illegible] 1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2[illegible]	7.9 / 8.4	1.78[c]		10 / 0.44		3 / 0.10	1[illegible]3 / 1.69		2.5 / 0.27			0.0		Tot. Alk. 1[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 1440	[illegible]	[illegible]	[illegible]	1[illegible]	231	8.3 / 8.4	1.35[c]		11 / 0.48		3 / 0.10	1[illegible]3 / 1.[illegible]		14 / 0.39			0.1		Tot. Alk. 11[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] [illegible]	1.[illegible]	[illegible]	[illegible]	[illegible]	28[illegible]	7.5 / 7.9	2.40[c]		13 / 0.57		0 / 0.00	148 / 2.43		14 / 0.39			0.0				1[illegible]	1[illegible]	[illegible]	[illegible]		
[illegible]/14 [illegible]	DRY																									
1[illegible]/2 11[illegible]	DRY																									
11/1 1[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	32[illegible]	7.4 / [illegible]	2.94[c]		17 / 0.74		0 / 0.00	137 / 2.25		28 / 0.79			0.3				[illegible]	1[illegible]	1[illegible]	[illegible]		
[illegible] 11[illegible]	[illegible]	[illegible]	11.[illegible]	1[illegible]	248	7.7 / 8.3	2.[illegible]		12 / 0.52		2 / 0.07	114 / 1.87		16 / 0.45			0.1		Tot. Alk. 11[illegible]		[illegible]	1[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

COW CREEK NEAR MILLVILLE (STA. 88a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a / b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 1.[illegible]		[illegible] / 0.33		[illegible] / [illegible]	[illegible] / 1.19		[illegible] / 0.24			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.3	[illegible] / [illegible]		[illegible] / .1[illegible]		[illegible] / [illegible]	[illegible] / .4[illegible]		[illegible] / [illegible]			.1				.1	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.29		[illegible] / 0.00	[illegible] / 0.77		[illegible] / 0.1[illegible]			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.22		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				.1	.1	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		7.2 / 7.6	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.2[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.77	[illegible] / 0.0[illegible]	[illegible] / 0.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 [illegible]	71[f]	.1	.7		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / 0.26		[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / 0.13			[illegible]				[illegible]			1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0 / 8.2	[illegible] / 1.2[illegible]		[illegible] / 0.34		[illegible] / [illegible]	[illegible] / 1.38		[illegible] / 0.14			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.0 / 8.1	[illegible] / 1.[illegible]		11 / 0.48		[illegible] / [illegible]	106 / 1.74		8.[illegible] / 0.24			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.7 / 7.7	[illegible] / [illegible]	[illegible] / [illegible]	11 / 0.48	[illegible] / 0.0[illegible]	[illegible] / [illegible]	111 / 1.[illegible]	[illegible] / [illegible]	7.5 / 0.21	[illegible] / 0.01	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 [illegible]	14[illegible]	[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.0 / 7.7	[illegible] / 1.4[illegible]		11 / 0.48		[illegible] / 0.00	1[illegible] / 1.67		7.5 / 0.21			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.2[illegible]		[illegible] / .3[illegible]		[illegible] / 0.00	79 / 1.2[illegible]		[illegible] / 0.10			[illegible]									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 7.9	[illegible] / [illegible]		[illegible] / .0[illegible]		[illegible] / [illegible]	57 / 0.93		5.0 / .14			[illegible]				[illegible]	[illegible]		[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA CROSS CHANNEL NEAR WALNUT GROVE (STA. 98)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962	Tidal																									
1/10 0920		46	10.8	90	220	7.5/7.5	—/1.54[c]		15/0.65		0/0.00	90/1.48		12/0.34			0.1			139[e]	30	77	3	30	Median 620. Maximum >7000. Minimum 2.3	USGS
2/13 1020		49	10.9	95	85	7.1/7.4	—/0.64[c]		4.2/0.18		0/0.00	31/0.51		3.5/0.10			0.1			54[e]	22	32	7	140		
3/7 1540		49	10.9	95	146	7.1/7.5	—/1.09[c]		7.4/0.32		0/0.00	52/0.85		15/0.42			0.0			92[e]	23	54	11	25		
4/5 0935		57	9.8	94	147	7.1/7.6	—/1.06[c]		7.4/0.32		0/0.00	57/0.93		5.2/0.15			0.1			93[e]	23	53	6	26		
5/9 1015		63	8.7	90	120	7.1/7.7	11/0.55	3.8/0.31	8.2/0.35	1.0/0.03	0/0.00	52/0.85	10/0.21	7.0/0.20	0.4/0.01	0.1/0.01	0.0	15	ABS 0.0; PO_4 0.15	82[f]	29	43	0	25		
6/11 1055		69	8.4	93	167	7.0/7.4	—/1.08[c]		11/0.48		0/0.00	59/0.97	19/0.40	8.0/0.23			0.1			106[e]	31	54	6	30		
7/11 0955		70	7.5	84	180	6.9/7.6	—/1.20[c]		13/0.57		0/0.00	70/1.15		9.2/0.26			0.0			114[e]	32	60	3	15		
8/6 1335		71	8.3	94	169	7.4/7.6	—/1.17[c]		14/0.61		0/0.00	78/1.28		9.3/0.26			0.0			107[e]	34	58	0	7		
9/4 1015		69	6.6	73	208	7.1/7.6	14/0.70	8.6/0.71	17/0.74	1.3/0.03	0/0.00	102/1.67	7.0/0.15	11/0.31	0.6/0.01	0.0/0.00	0.1	20	As 0.00; ABS 0.0; PO_4 0.00	130[f]/142[g]	34	71	0	30		
10/3 1205		67	6.8	74	170	7.3/7.4	—/1.24[c]		11/0.48		0/0.00	82/1.34		8.3/0.23			0.0			107[e]	28	62	0	4		
11/8 1055		59	8.7	86	158	7.3/7.9	—/1.12[c]		11/0.48		0/0.00	74/1.21		7.4/0.21			0.0			100[e]	30	56	0	30		
12/5 1045		50	10.5	92	87	7.1/7.3	—/0.69[c]		4.2/0.18		0/0.00	44/0.72		3.6/0.10			0.0			55[e]	21	35	0	35		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Minerals analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

DELTA-MENDOTA CANAL NEAR MENDOTA (STA. NO. 92)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/10 1400																										USGS
1/11 1145	---	48	11.9	103	1100	8.1	c 5.03		122 / 5.31		0.0 / 0.00	160 / 2.62		163 / 4.60			0.5				51	25	0	3	Median 50. Maximum 7000. Minimum 0.06	
2/7 1125	---	46	12.1	101	1360	8.0	c 6.48		152 / 6.61		0.0 / 0.00	177 / 2.90		221 / 6.23			0.7				50	324	174	10		
3/1 0720	---	48	11.2	97	1360	8.1	c 6.15		168 / 7.31		0.0 / 0.00	180 / 2.95		223 / 6.29			0.7				54	304	161	15		
4/5 0930	---	62	8.9	91	546	7.7	c 2.02		62 / 2.70		0.0 / 0.00	87 / 1.43		77 / 2.17			0.4				52	126	55	70		
5/1 1430	---	68	8.7	96	352	7.8	20 / 1.00	9.7 / 0.80	36 / 1.57	2.1 / 0.05	0.0 / 0.00	74 / 1.21	41 / 0.85	43 / 1.21	1.4 / 0.02	0.1 / 0.01	0.0	18	ABS 0.0; PO_4 0.90; AS 0.02	207	46	90	29	25		
6/5 0815	---	68	8.3	91	307	7.3	c 1.54		32 / 1.39		0.0 / 0.00	65 / 1.07		39 / 1.10			0.1				47	77	24	20		
7/3 1400	---	80	6.9	85	359	7.9	c 1.80		39 / 1.70		0.0 / 0.00	82 / 1.34		48 / 1.35			0.0				49	90	23	50		
8/8 0740	---	73	7.3	83	447	7.7	c 2.16		50 / 2.18		0.0 / 0.00	100 / 1.64		68 / 1.92			0.1				50	108	26	50		
9/7 0900	---	75	7.7	90	522	8.1	26 / 1.30	14 / 1.14	58 / 2.52	2.6 / 0.07	0.0 / 0.00	111 / 1.82	40 / 0.83	80 / 2.26	1.4 / 0.02	0.1 / 0.01	0.1	15	ABS 0.0; PO_4 0.25; AS 0.01	292	50	122	31	30		
10/5 0930	---	68	8.5	94	462	7.7	c 2.12		54 / 2.35		0.0 / 0.00	102 / 1.67		72 / 2.03			0.1				53	106	22	20		
11/9 1130	---	62	9.6	98	885	8.2	c 3.88		106 / 4.61		0.0 / 0.00	146 / 2.39		146 / 4.12			--				54	194	74	25		
12/7 1200	---	53	10.0	92	850	8.1	c 3.78		102 / 4.44		0.0 / 0.00	144 / 2.36		138 / 3.89			0.5				54	189	71	5		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE -14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA-MENDOTA CANAL NEAR TRACY (STA. 93)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/11 0950	[illegible] MD	46	10.5	88	1440	7.5/8.1	6.88[c]		168/7.31		0/0.00	205/3.36		252/7.11			0.7			811[e]	52	344	176	2	Median 50. Maximum 2400. Minimum 0.[illegible]	USGS
2/15 1405	0	54	8.3	77	1320	7.6/7.7	5.62[c]		175/7.61		0/0.00	188/3.08		214/6.04			1.0			743[e]	58	281	127	35		
3/8 1440	0	61	9.5	98	665	7.4/7.7	2.91[c]		78/3.39		0/0.00	103/1.69		95/2.68			0.5			374[e]	54	145	61	25		
4/11 133[illegible]	2[illegible]0	68	8.1	89	538	7.4/7.5	2.56[c]		56/2.44		0/0.00	88/1.44		76/2.14			0.0			303[e]	49	128	58	38		
5/5 1400	3300	70	7.5	84	293	7.3/7.7	17/0.85	8.9/0.73	26/1.13	2.3/0.06	0/0.00	70/1.15	31/0.65	37/1.04	0.8/0.01	0.2/0.01	0.0	13	ABS 0.0; PO_4 0.00	170[f]	41	79	22	30		
6/[illegible] 1400	3300	70	9.2	103	309	8.6/7.1	1.47[c]		33/1.44		0/0.00	66/1.08		45/1.27			0.1			174[e]	49	74	20	20		
7/10 1120	4100	75	6.5	77	269	7.3	1.48[c]		27/1.17		0/0.00	73/1.20		31/0.87			0.0			151[e]	44	74	14	45		
8/4 1125	3360	75	7.2	85	315	7.5/7.5	1.60[c]		36/1.57		0/0.00	84/1.38		43/1.21			0.0			177[e]	50	80	11	45		
9/[illegible] 150[illegible]	2[illegible]10	75	7.[illegible]	90	368	7.4/7.8	1.80/0.90	2.5/0.7[illegible]	45/1.96	2.1/0.05	0/0.00	92/1.51	25/0.52	53/1.50	0.9/0.01	0.0/0.00	0.2	15	As 0.00; ABS 0.1; PO_4 0.05	214[f]	53	84	9	40		
10/4 1150	1700	68	9.1	100	662	7.8/7.7	3.01[c]		78/3.39		0/0.00	140/2.29		111/3.13			0.1			373[e]	53	150	35	10		
11/14 1145	[illegible]	61	9.2	[illegible]	8[illegible]0	7.6/7.7	3.76[c]		102/4.44		0/0.00	148/2.43		140/3.95			0.2			473[e]	54	188	67	30		
12/1 1100	[illegible]	61	7.5	87	729	7.4/7.8	2.96[c]		83/3.61		0/0.00	127/2.08		120/3.39			0.5			410[e]	55	148	44	15		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT (STA. 93)

Date and time sampled PST	Discharge in cfs M. D.	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/27-31	340				1310	7.5	62 / 3.09	33 / 2.70	163 / 7.09	5.1 / 0.13	0 / 0.00	203 / 3.33	141 / 2.94	232 / 6.54	3.5 / 0.06	0.2 / 0.01	0.8	28	Fe 0.00	769[f] / 799[g]	54	290	124			USGS
2/1-9	510				1360	7.6	63 / 3.14	34 / 2.79	167 / 7.26	5.2 / 0.13	0 / 0.00	199 / 3.26	159 / 3.31	221 / 6.23	3.5 / 0.06	0.2 / 0.01	0.8	26	Fe 0.00	778[f] / 829[g]	55	296	133			
2/20-28	110				617	7.4	30 / 1.50	15 / 1.20	71 / 3.09	3.1 / 0.08	0 / 0.00	100 / 1.64	71 / 1.48	104 / 2.93	2.8 / 0.05	0.0 / 0.00	0.6	18	Fe 0.19	365[f] / 382[g]	53	135	53			
3/1-6	142				582	7.5	28 / 1.40	15 / 1.20	66 / 2.87	2.6 / 0.07	0 / 0.00	101 / 1.66	73 / 1.52	79 / 2.23	2.5 / 0.04	0.2 / 0.01	0.4	19	Fe 0.09	336[f] / 355[g]	52	130	47			
3/7	760				325	7.3	18 / 0.90	8.8 / 0.72	34 / 1.48	2.1 / 0.05	0 / 0.00	71 / 1.16	36 / 0.75	38 / 1.07	2.1 / 0.03		0.3	17	Fe 0.22	192[f]	47	81	23			
3/8	322				580	7.4	29 / 1.45	14 / 1.19	66 / 2.87	2.5 / 0.06	0 / 0.00	100 / 1.64	70 / 1.46	78 / 2.20	2.4 / 0.04		0.4	22	Fe 0.10	333[f]	52	132	50			
3/9-16	614				393	7.4	21 / 1.05	10 / 0.83	42 / 1.83	2.1 / 0.05	0 / 0.00	78 / 1.28	47 / 0.98	50 / 1.41	1.8 / 0.03	0.2 / 0.01	0.2	19	Fe 0.09	231[f] / 240[g]	49	94	30			
3/17-31	1311				508	7.7	26 / 1.30	13 / 1.08	55 / 2.39	2.2 / 0.06	0 / 0.00	86 / 1.41	61 / 1.27	69 / 1.95	1.5 / 0.02	0.2 / 0.01	0.3	18	Fe 0.03	288[f] / 306[g]	49	119	48			
4/1-10	2380				640	7.9	32 / 1.60	16 / 1.35	73 / 3.18	2.7 / 0.07	0 / 0.00	103 / 1.69	75 / 1.56	95 / 2.68	3.0 / 0.05	0.2 / 0.01	0.4	17	Fe 0.03	365[f] / 378[g]	51	147	63			
4/11-20	2740				525	7.8	28 / 1.40	14 / 1.15	58 / 2.52	2.5 / 0.06	0 / 0.00	90 / 1.48	62 / 1.29	75 / 2.12	3.2 / 0.05	0.2 / 0.01	0.3	16	Fe 0.04	303[f] / 312[g]	49	127	53			
4/21-30	2930				396	7.5	23 / 1.15	11 / 0.89	42 / 1.83	2.2 / 0.06	0 / 0.00	77 / 1.26	43 / 0.90	55 / 1.55	3.9 / 0.06	0.1 / 0.01	0.2	15	Fe 0.07	233[f] / 234[g]	46	102	39			
5/1-12	3190				311	7.7	20 / 1.00	7.5 / 0.62	32 / 1.39	1.9 / 0.05	0 / 0.00	68 / 1.11	30 / 0.62	42 / 1.18	2.4 / 0.04	0.3 / 0.02	0.1	15	Fe 0.06	184[f] / 174[g]	45	81	25			
5/13-14	3010				194	7.7	14 / 0.70	3.9 / 0.32	18 / 0.78	1.4 / 0.04	0 / 0.00	47 / 0.77	16 / 0.33	26 / 0.73	2.8 / 0.05		0.1	15		120[f] / 111[g]	42	51	12			
5/15-31	2630				340	7.5	22 / 1.10	7.5 / 0.62	36 / 1.57	2.1 / 0.05	0 / 0.00	73 / 1.20	31 / 0.65	48 / 1.35	2.5 / 0.04	0.3 / 0.02	0.1	18	Fe 0.09	204[f] / 193[g]	47	86	26			
6/1-4	2920				353	7.7	21 / 1.05	9.4 / 0.77	36 / 1.57	2.6 / 0.07	0 / 0.00	83 / 1.36	31 / 0.65	48 / 1.35	1.9 / 0.03	0.2 / 0.01	0.1	1.5	Fe 0.04	206[f] / 214[g]	45	91	23			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT (STA. 93)
(continued)

Date and time sampled P.S.T	Discharge in cfs M. D.	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
6/5-11	3530				244	7.5	15 / 0.75	6.0 / 0.49	25 / 1.09	1.9 / 0.05	0 / 0.00	62 / 1.02	18 / 0.37	32 / 0.90	1.2 / 0.02	0.2 / 0.01	0.1	16	Fe 0.01	146[f] / 141[g]	46	62	11			USGS
6/12-21	3860				270	7.7	17 / 0.85	6.7 / 0.55	28 / 1.22	2.1 / 0.05	0 / 0.00	72 / 1.18	22 / 0.46	34 / 0.96	0.8 / 0.01	0.3 / 0.02	0.2	15	Fe 0.04	161[f] / 156[g]	46	70	11			
6/22-30	3930				440	7.9	25 / 1.25	10 / 0.83	48 / 2.09	2.6 / 0.07	0 / 0.00	88 / 1.44	37 / 0.77	68 / 1.92	0.0 / 0.00	0.3 / 0.02	0.2	15	Fe 0.06	249[f] / 232[g]	49	104	12			
7/1-10	3890				266	7.7	17 / 0.85	8.1 / 0.67	29 / 1.26	2.1 / 0.05	0 / 0.00	77 / 1.26	23 / 0.48	35 / 0.99	0.8 / 0.01	0.2 / 0.01	0.1	16	Fe 0.13	171[f] / 174[g]	45	77	13			
7/11-20	3820				259	7.5	15 / 0.75	8.1 / 0.67	26 / 1.13	1.3 / 0.03	0 / 0.00	75 / 1.23	20 / 0.42	30 / 0.85	1.8 / 0.03	0.1 / 0.01	0.0	18	Fe 0.03	157[f] / 159[g]	44	71	9			
7/21-30	4240				247	7.5	16 / 0.80	7.1 / 0.58	21 / 0.91	1.2 / 0.03	0 / 0.00	77 / 1.26	19 / 0.40	24 / 0.68	1.4 / 0.02	0.1 / 0.01	0.0	15	Fe 0.01	143[f] / 147[g]	39	69	[illegible]			
7/31-8/10	4160				[illegible]	7.6	15 / 0.75	7.7 / 0.63	25 / 1.09	1.3 / 0.03	0 / 0.00	79 / 1.29	20 / 0.42	26 / 0.73	1.4 / 0.02	0.1 / 0.01	0.0	14	Fe 0.03	150[f] / 152[g]	44	69	4			
8/11-5	[illegible]				300	7.3	16 / 0.80	8.8 / 0.72	33 / 1.44	1.4 / 0.04	0 / 0.00	81 / 1.33	22 / 0.46	41 / 1.16	2.1 / 0.03	0.0 / 0.00	0.0	17	Fe 0.06	181[f] / 179[g]	48	78	10			
8/6	3590				1330	7.2	65 / 3.24	33 / 2.73	172 / 7.48	3.6 / 0.09	0 / 0.00	218 / 3.57	150 / 3.12	224 / 6.32	1.8 / 0.03		0.7	28		783[f]	55	296	117			
8/7-9	3750				307	7.4	16 / 0.80	8.5 / 0.70	35 / 1.52	1.8 / 0.05	0 / 0.00	83 / 1.36	19 / 0.40	42 / 1.18	1.3 / 0.02	0.1 / 0.01	0.0	17	Fe 0.09	182[f] / 175[g]	50	75	7			
8/10	3580				437	7.0	25 / 1.25	11 / 0.91	48 / 2.09	2.4 / 0.06	0 / 0.00	101 / 1.66	30 / 0.62	69 / 1.95	1.7 / 0.03		0.0	18		255[f]	48	108	25			
8/11	3410				290	7.2	16 / 0.80	8.5 / 0.70	32 / 1.39	1.7 / 0.04	0 / 0.00	82 / 1.34	18 / 0.37	39 / 1.10	1.9 / 0.03		0.0	17		174[f]	[illegible]	[illegible]	[illegible]			
8/12	3410				924	7.9	50 / 2.50	24 / 1.94	108 / 4.71	4.2 / 0.11	0 / 0.00	178 / 2.92	55 / 1.15	170 / 4.80	2.7 / 0.04		0.1	37		537[f]	[illegible]	280	70			
8/13	3300				302	7.3	16 / 0.80	8.5 / 0.70	34 / 1.48	1.8 / 0.05	0 / 0.00	84 / 1.38	18 / 0.37	42 / 1.18	1.3 / 0.02		0.0	17		180[f]	49	75	[illegible]			
8/14	3300				633	7.2	34 / 1.70	16 / 1.32	71 / 3.09	2.8 / 0.07	0 / 0.00	128 / 2.10	46 / 0.96	107 / 3.02	1.6 / 0.03		0.0	22		283[f]	50	151	48			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT (STA. 93)
(continued)

Date and time sampled P.S.T.	Discharge in cfs M. D.	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1[illegible]																										
[illegible]/15-21	3720				330	7.4	16 / 0.80	10 / 0.84	36 / 1.57	1.9 / 0.05	0 / 0.00	88 / 1.44	21 / 0.44	44 / 1.24	1.9 / 0.03	0.1 / 0.01	0.0	17	Fe 0.04	191[f] / 191[g]	48	82	10			USGS
[illegible]	3710				468	7.3	25 / 1.25	12 / 1.01	53 / 2.31	2.3 / 0.06	0 / 0.00	108 / 1.77	33 / 0.69	74 / 2.09	1.9 / 0.03		0.0	19		273[f]	50	113	24			
[illegible]/23-[illegible]	3650				314	7.6	17 / 0.85	8.4 / 0.69	36 / 1.57	1.5 / 0.04	0 / 0.00	92 / 1.51	21 / 0.44	42 / 1.18	1.3 / 0.02	0.2 / 0.01	0.0	19	Fe 0.06	191[f] / 187[g]	50	79	4			
[illegible]/2[illegible]	3550				498	7.9	25 / 1.25	14 / 1.15	56 / 2.44	2.5 / 0.06	0 / 0.00	110 / 1.80	34 / 0.71	81 / 2.29	1.8 / 0.03		0.0	20		288[f]	50	120	30			
[illegible]/27-[illegible]	2340				338	7.5	16 / 0.80	11 / 0.90	38 / 1.65	1.7 / 0.04	0 / 0.00	91 / 1.49	22 / 0.46	46 / 1.30	1.4 / 0.02	0.3 / 0.02	0.0	18	Fe 0.03	199[f] / 194[g]	49	85	10			
8/30	2720				704	7.4	42 / 2.10	17 / 1.42	87 / 3.78	3.4 / 0.09	0 / 0.00	146 / 2.39	46 / 0.96	136 / 3.84	1.8 / 0.03		0.1	20		425[f]	51	176	56			
8/31	2580				327	7.3	16 / 0.80	10 / 0.86	37 / 1.61	1.8 / 0.05	0 / 0.00	91 / 1.49	22 / 0.46	45 / 1.27	1.3 / 0.02		0.0	18		196[f]	48	83	8			
9/1-5	2430				379	7.5	20 / 1.00	10 / 0.85	44 / 1.91	2.1 / 0.05	0 / 0.00	98 / 1.61	25 / 0.52	55 / 1.55	1.5 / 0.02	0.1 / 0.01	0.0	20	Fe 0.04	226[f] / 217[g]	50	92	12			
9/6-7	2050				728	7.9	37 / 1.85	19 / 1.57	88 / 3.83	3.4 / 0.09	0 / 0.00	150 / 2.46	53 / 1.10	123 / 3.47	0.7 / 0.01	0.1 / 0.01	0.0	25	Fe 0.01	423[f] / 418[g]	52	171	48			
9/8-9	2200				373	7.7	18 / 0.90	11 / 0.88	44 / 1.91	2.0 / 0.05	0 / 0.00	95 / 1.56	19 / 0.40	57 / 1.61	0.2 / 0.00	0.4 / 0.02	0.0	18	Fe 0.01	217[f] / 226[g]	51	89	11			
9/10-14	1870				549	7.5	28 / 1.40	14 / 1.14	64 / 2.78	2.6 / 0.07	0 / 0.00	120 / 1.97	40 / 0.83	88 / 2.48	1.5 / 0.02	0.2 / 0.01	0.0	22	Fe 0.02	319[f] / 313[g]	52	127	29			
9/15	1820				740	7.9	38 / 1.90	18 / 1.52	89 / 3.87	3.2 / 0.08	0 / 0.00	152 / 2.49	54 / 1.12	120 / 3.39	2.3 / 0.04	0.2 / 0.01	0.0	24	Fe 0.00	424[f]	53	171	46			
9/16-17	1770				544	7.6	29 / 1.45	13 / 1.09	61 / 2.65	2.8 / 0.07	0 / 0.00	121 / 1.98	32 / 0.67	86 / 2.43	1.0 / 0.02	0.2 / 0.01	0.0	28	Fe 0.01	313[f] / 316[g]	50	127	28			
9/18-19	1700				834	7.9	46 / 2.30	19 / 1.60	99 / 4.31	3.8 / 0.10	0 / 0.00	172 / 2.82	56 / 1.17	142 / 4.01	1.1 / 0.02	0.2 / 0.01	0.0	26	Fe 0.01	478[f] / 480[g]	52	195	54			
9/20	1740				402	7.4	20 / 1.00	11 / 0.89		2.2 / 0.06	0 / 0.00	94 / 1.54	27 / 0.56	61 / 1.72	1.7 / 0.03	0.1 / 0.01	0.0	18	Fe 0.05	247[f]		94	17			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT (STA. 93)
(continued)

Date and time sampled P.S.T	Discharge in cfs M. D.	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
9/21-22	[illegible]				540	8.2	43 / 2.15	21 / 1.73	98 / 4.26	3.2 / 0.08	0 / 0.00	164 / 2.69	65 / 1.35	140 / 3.95	1.6 / 0.02	0.1 / 0.01	0.1	21	Fe 0.00	473[f] / 489[g]	52	194	60			USGS
9/23	[illegible]				452	7.5	21 / 1.05	[illegible] / 1.0[illegible]	50 / 2.18	2.[illegible] / 0.06	0 / 0.00	100 / 1.64	38 / 0.79	69 / 1.95	1.7 / 0.03	0.1 / 0.01	0.0	25	Fe 0.03	269[f]	50	104	22			
9/24	[illegible]				[illegible]	8.0	[illegible] / [illegible]	21 / 1.70	102 / 4.44	[illegible] / 0.08	0 / 0.00	173 / 2.84	66 / 1.37	149 / 4.20	0.5 / 0.01	0.2 / 0.01	0.1	23	Fe 0.00	49[illegible][f]	52	200	5[illegible]			
[illegible]	[illegible]				[illegible]	7.7	24 / 1.20	13 / 1.05	[illegible] / 2.35	2.[illegible] / 0.07	0 / 0.00	109 / 1.79	43 / 0.89	78 / 2.20	1.4 / 0.02	0.1 / 0.01	0.0	18	Fe 0.03	278[f] / 279[g]	50	112	23			
9/29	[illegible]				511	7.[illegible]	40 / 2.00	21 / 1.71	92 / 4.00	3.4 / 0.09	0 / 0.00	159 / 2.61	58 / 1.21	130 / 3.67	2.6 / 0.04	0.1 / 0.01	0.0	25	Fe 0.00	450[f]	51	186	5[illegible]			
9/30	[illegible]				[illegible]	7.1	20 / 1.00	1[illegible] / 0.9[illegible]	48 / 2.00	2.4 / 0.0[illegible]	0 / 0.00	100 / 1.64	22 / 0.46	63 / 1.78	1.3 / 0.02	0.1 / 0.01	0.0	16	Fe 0.03	232[f]	50	98	1[illegible]			
10/1-3	1940				[illegible]	7.7	23 / 1.15	14 / 1.13	52 / 2.27	2.5 / 0.06	0 / 0.00	106 / 1.74	29 / 0.60	74 / 2.09	1.3 / 0.02	0.2 / 0.01	0.1	17	Fe 0.08	265[f] / 268[g]	49	114	27			
10/4-9	1800				[illegible]	[illegible]	45 / 2.25	21 / 1.7[illegible]	101 / 4.39	[illegible] / 0.09	0 / 0.00	170 / 2.79	64 / 1.33	156 / 4.40	6.1 / 0.10	0.2 / 0.01	0.1	25	Fe 0.01	50[illegible][f] / 507[g]	52	201	6[illegible]			
10/10-14	1730				47[illegible]	[illegible]	24 / 1.20	15 / 1.25	50 / 2.13	2.5 / 0.07	0 / 0.00	11[illegible] / 1.90	33 / 0.69	74 / 2.09	1.[illegible] / 0.03	0.1 / 0.01	0.2	21	Fe 0.08	278[f] / 278[g]	46	12[illegible]	28			
10/15-18	986				[illegible]	[illegible]	[illegible] / 2.30	22 / 1.81	105 / 4.57	3.5 / 0.09	0 / 0.00	167 / 2.74	72 / 1.50	155 / 4.37	5.7 / 0.09	0.2 / 0.01	0.3	28	Fe 0.05	520[f] / 521[g]	52	200	69			
[illegible]	[illegible]				[illegible]	[illegible]	35 / 1.75	16 / 1.29	74 / 3.22	[illegible] / 0.07	0 / 0.00	129 / 2.13	50 / 1.04	110 / 3.10	3.1 / 0.05	0.3 / 0.02	0.1	26	Fe 0.04	382[f] / 384[g]	51	150	4[illegible]			
10/25-31	[illegible]				[illegible]	[illegible]	44 / 2.20	21 / 1.7[illegible]	100 / 4.35	3.2 / 0.08	0 / 0.00	154 / 2.52	73 / 1.52	151 / 4.26	4.4 / 0.07	0.2 / 0.01	0.2	26	Fe 0.01	499[f] / 499[g]	52	198	7[illegible]			
11/1-10	[illegible]				[illegible]	[illegible]	[illegible] / 2.25	17 / 1.43	[illegible] / 4.27	2.[illegible] / 0.07	0 / 0.00	148 / 2.43	73 / 1.52	137 / 3.86	4.9 / 0.08	0.0 / 0.00	0.3	26	Fe 0.01	470[f] / 478	53	187	6[illegible]			
11/11-21	[illegible]				652	7.9	43 / 2.15	21 / 1.69	98 / 4.26	3.6 / 0.09	0 / 0.00	154 / 2.52	77 / 1.60	142 / 4.01	4.9 / 0.08	0.0 / 0.00	0.3	25	Fe 0.02	491[f] / 500[g]	52	198	6[illegible]			
11/[illegible]	[illegible]				[illegible]	7.3	39 / 1.95	19 / 1.57	93 / 4.05	3.8 / 0.10	0 / 0.00	139 / 2.28	70 / 1.46	129 / 3.64	4.9 / 0.08	0.0	0.3	23	Fe 0.01	450[f] / 456[g]	53	176	6[illegible]			

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

DUTCH SLOUGH AT FARRAR PARK BRIDGE (STA. 108b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million													Total dissolved solids in ppm e	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
														equivalents per million												
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
[illegible]																										
[illegible] 1030					1108															730						[illegible]
[illegible] 1200		51			322															340						
[illegible] 1400					287															194						
[illegible] 1445		[illegible]			219															144						
[illegible] 1050		70			234															130						
7/17 1145		[illegible]			273															174						
[illegible] 0850		75			554															424						
9/24 1025		70			447															296						
10/17 1045		[illegible]			321															244						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ELDER CREEK AT GERBER (STA. 95a)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/12 1150	4.3	48	11.7	101	534	7.7/8.2	4.46[c]		26/1.13		0/0.00	208/3.41		60/1.69			0.1				20	223	52	2		USGS
2/9 1305	1,370	53	10.2	94	177	8.1/7.6	1.73[c]		7.0/0.30		0/0.00	93/1.52		4.4/0.12			0.1				15	87	11	500		
3/9 0905	255	48	11.0	95	318	8.1/8.3	3.02[c]		6.5/0.28		3/0.10	166/2.72		8.0/0.23			0.1		Tot. Alk. 172		8	151	15	45		
4/6 0915	160	60	10.0	100	208	8.1/8.2	1.91[c]		6.6/0.29		0/0.00	111/1.82		6.8/0.19			0.0				13	[illegible]	5	2		
5/7 1240	34	79	8.3	101	314	8.3/8.4	26/1.30	18/1.52	14/0.61	1.2/0.03	4/0.13	156/2.56	11/0.23	18/0.51	0.1/0.00	0.1/0.01	0.3	22	Tot. Alk. 164 PO_4 0.10	13[f]	10	141	7	3		
6/20 0730	2.4	72	8.0	91	459	8.1/8.2	4.12[c]		18/0.78		0/0.00	235/3.85		32/0.90			0.1				16	[illegible]	13	1[illegible]		
7/2 0945	0.8	77	10.7	127	475	8.1/8.3	4.28[c]		20/0.87		6/0.20	229/3.75		31/0.87			0.0		Tot. Alk. 241		17	214	1[illegible]	2		
8/1 1100	DRY																									
9/11 0915	DRY																									
10/1 0815	DRY																									
11/1 1000	DRY																									
12/10 1010	23	50	11.5	100	400	8.1/8.4	3.43[c]		18/0.78		3/0.10	186/3.0		31/0.87			0.0		Tot. Alk. 133		14	171	15	-		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 5-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

ELDER CREEK NEAR HACIENDA (STA. 13e)

Date and time sampled PST	Discharge in cfs	Temp. in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / 1.57		[illegible] / 0.15	[illegible] / 2.24		[illegible] / 1.76			0.0		Tot. Alk. [illegible]		27	21[illegible]	[illegible]	[illegible]		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		7.[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 2.35		[illegible] / [illegible]			0.[illegible]					12	122	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 3.31		[illegible] / 0.37			0.[illegible]		Tot. Alk. 214		12	[illegible]	2.	4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			0.[illegible]					[illegible]	[illegible]	[illegible]	3[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	15 / [illegible]	[illegible] / [illegible]	[illegible] / 0.15	157 / 2.57	[illegible] / [illegible]	25 / .71	[illegible] / .00	0.1 / 0.01	0.0	17	PO_4 0.00 Tot. Alk. 1[illegible]	19[illegible][f]	1[illegible]	144	[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	1[illegible] / 2.57		[illegible] / [illegible]			[illegible]		Tot. Alk. 1[illegible]		[illegible]	[illegible]	[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		59 / 2.[illegible]		[illegible] / 0.17	1[illegible] / 2.51		149 / 4.2			0.1		Tot. Alk. 1[illegible]		41	[illegible]	7[illegible]	1		
[illegible]	[illegible]	[illegible]	[illegible]	22	[illegible]	[illegible]	[illegible] / [illegible]		111 / 4.[illegible]		0 / 0.2[illegible]	17[illegible] / 2.[illegible]		245 / 6.91			0.1		Tot. Alk. 1[illegible]		4[illegible]	27[illegible]	1[illegible]	2		
[illegible]	[illegible]	[illegible]	[illegible]	111	[illegible]	[illegible]	[illegible] / 3.24	[illegible] / 3.[illegible]	184 / 8.0[illegible]	2.[illegible] / [illegible]	1[illegible] / 0.55	130 / 2.13	11 / 0.23	440 / 12.41	[illegible] / 0.00	0.1 / 0.01	0.[illegible]	40	PO_4 0.00 Tot. Alk. 162	871[f] 1,010[g]	52	3[illegible]	227	4		
[illegible]	[illegible]	[illegible]	[illegible]	47	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		25 / 1.0[illegible]		[illegible] / 0.2[illegible]	[illegible] / 2.[illegible]		46 / 1.30			0.1		Tot. Alk. 1[illegible]		[illegible]	17[illegible]	22	7		
[illegible]	[illegible]	[illegible]	11.[illegible]	47	[illegible]	[illegible] / 5.1	[illegible] / 3.0[illegible]		10 / 0.76		0 / 0.00	172 / 2.82		22 / 0.62			0.0				20	153	11	25		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	335	7.[illegible] / [illegible]	[illegible] / 3.0[illegible]		14 / 0.61		[illegible] / 0.1[illegible]	167 / 2.74		16 / 0.45			0.0		Tot. Alk. 17[illegible]		17	151	7	35		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-14
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO.5)

FALSE RIVER AT WEBB PUMP (STA. 112a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962	Tidal																									USBR
2/16 1130		50			604															390						
3/12 1040		51			467															316						
4/23 1035		64			161															158						
5/16 1035		63			152															106						
6/13 1130		74			198															116						
7/17 1035					249															184						
8/14 0935		72			328															272						
9/14 0930		68			468															336						
10/17 0935		62			231															216						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

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TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
FEATHER RIVER AT NICOLAUS (STA. 20)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/4 1100	2100	42	13.4	106	131	7.3/7.9	1.12[c]		4.5/0.20		0/0.00	69/1.13		2.0/0.06			0.0			88[e]	15	50	0	3	Median 2[illegible]. Maximum 7000. Minimum 0.2	USGS
2/8 1415	4920	51	11.2	100	130	7.5/8.0	1.10[c]		4.8/0.21		0/0.00	62/1.02		4.9/0.14			0.0			87[e]	16	55	4	30		
3/15 0800	9500 est.	38	11.1	83	98	7.3/7.7	0.82[c]		3.4/0.15		0/0.00	44/0.72		2.4/0.07			0.1			66[e]	15	41	5	35		
4/5 0850	14600	54	10.4	96	88	7.3/7.2	0.76[c]		4.3/0.19		0/0.00	43/0.70		2.8/0.08			0.0			59[e]	20	38	3	35		
5/15 0830	8700	57	10.6	102	71	7.2/7.5	7.2/0.36	2.7/0.22	2.5/0.11	0.6/0.02	0/0.00	36/0.59	2.0/0.04	2.0/0.06	0.0/0.00	0.0/0.00	0.0	15	ABS 0.0; PO_4 0.00;	50[f]	16	29	0	6		
6/11 0800	5510	66	8.9	95	68	7.2/7.3	0.52[c]		3.5/0.15		0/0.00	33/0.54		2.8/0.08			0.0			46[e]	22	26	0	10		
7/2 0830	1400	73	8.3	96	106	7.7/7.7	0.88[c]		4.6/0.20		0/0.00	57/0.93		3.0/0.08			0.1			71[e]	19	44	0	7		
8/13 1100	1380	80	8.5	105	115	7.4/7.5	1.08[c]		6.0/0.26		0/0.00	68/1.11		2.5/0.07			0.1			77[e]	19	54	0	4		
9/10 0725	828	62	8.9	91	134	7.5/7.7	14/0.70	5.2/0.43	5.6/0.24	1.1/0.03	0/0.00	78/1.28	3.0/0.06	2.4/0.07	0.2/0.00	0.1/0.01	0.1	13	As 0.00; ABS 0.0; PO_4 0.05	83[f] 81[g]	17	56	0	15		
10/1 1450	1350	73	9.5	110	123	7.5/7.5	1.10[c]		5.6/0.24		0/0.00	73/1.20		2.2/0.06			0.0			83[e]	18	55	0	4		
11/1 0950	6180	60	9.0	90	113	6.7/7.3	0.94[c]		4.4/0.19		0/0.00	62/1.02		3.6/0.10			0.0			76[e]	17	47	0	8		
12/3 1035	8380	50	11.0	97	105	7.3/7.4	0.88[c]		4.1/0.18		0/0.00	56/0.92		3.0/0.08			0.1			71[e]	17	44	0	5		

a Field pH.
b Laboratory pH.
c Sum of calcium and magnesium in epm.
d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.
e Derived from conductivity vs TDS curves.
f Determined by addition of analyzed constituents.
g Gravimetric determination.
h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE 6-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
FEATHER RIVER AT NICOLAUS (STA. 20)

Date and time sampled P.S.T	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/1-19	2060				132	7.9	13/0.65	5.2/0.43	6.4/0.28		0/0.00	68/1.11								86[g]	21	54	0			USGS
1/20-31	3610				125	7.1	12/0.60	4.9/0.40	5.8/0.25		0/0.00	54/0.89								90[g]	20	50	6			
2/1-8	3220				129	7.2	12/0.60	5.7/0.47	7.2/0.31		0/0.00	63/1.03								86[g]	22	53	1			
2/9-18	34500				80	7.1	8.0/0.40	2.6/0.21	3.3/0.14		0/0.00	31/0.51								66[g]	19	30	5			
2/19-28	18600				98	7.2	9.5/0.47	3.8/0.31	4.4/0.19		0/0.00	41/0.67								73[g]	20	39	5			
3/1-10	14300				102	7.1	10/0.50	2.9/0.24	6.8/0.30		0/0.00	43/0.70								68[g]	29	37	2			
3/11-20	9540				104	7.3	9.6/0.48	4.1/0.34	5.4/0.23		0/0.00	47/0.77								68[g]	22	41	2			
3/21-31	10200				104	7.5	10/0.50	4.1/0.34	4.8/0.21		0/0.00	52/0.85								74[g]	20	42	0			
4/1-10	15500				92	7.5	9.2/0.46	3.2/0.26	4.5/0.20		0/0.00	44/0.72								66[g]	22	36	0			
4/11-20	18100				75	7.4	8.8/0.44	1.9/0.16	3.6/0.16		0/0.00	36/0.59								54[g]	21	30	0			
4/21-30	13200				75	7.4	8.4/0.42	2.2/0.18	3.7/0.16		0/0.00	37/0.61								55[g]	21	30	0			
5/1-15	10400				72	7.2	7.3/0.36	2.4/0.20	3.3/0.14		0/0.00	35/0.57								54[g]	20	28	0			
5/16-31	6530				79	7.8	8.0/0.40	2.7/0.22	4.0/0.17		0/0.00	40/0.66								62[g]	22	31	0			
6/1-15	---				77	7.0	7.6/0.38	2.8/0.23	4.0/0.17		0/0.00	38/0.62		2.6/0.07			0.0			53[g]	22	30	0			
6/16-30	---				91	7.1	9.9/0.49	2.7/0.22	4.6/0.20		0/0.00	46/0.75		4.0/0.11			0.0			62[g]	22	35	0			

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
FEATHER RIVER AT NICOLAUS (STA. 20)
(continued)

Date and time sampled P.S.T	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
7/1-7	1210				118	7.5	11 / 0.55	4.7 / 0.39	5.3 / 0.23		0 / 0.00	61 / 1.00		3.5 / 0.10			0.0			79[g]	20	47	0			USGS
7/8-31	706				129	7.8	12 / 0.60	6.1 / 0.50	5.6 / 0.24		0 / 0.00	70 / 1.15		3.0 / 0.08			0.1				18	55	0			
3/1-15	926				129	7.4	13 / 0.65	6.0 / 0.49	6.0 / 0.26	1.2 / 0.03	0 / 0.00	73 / 1.20	3.0 / 0.06	4.5 / 0.13	1.7 / 0.03	0.2 / 0.01	0.1	17	Fe 0.00	89[f] / 89[g]	18	57	0			
8/16-31	833				139	7.1	16 / 0.80	5.1 / 0.42	6.6 / 0.29	1.4 / 0.04	0 / 0.00	78 / 1.28	5.0 / 0.10	4.0 / 0.11	1.7 / 0.03	0.2 / 0.01	0.1	17	Fe 0.01	95[f] / 92[g]	19	61	0			
9/1-18	1190				136	7.5	12 / 0.60	6.3 / 0.52	6.2 / 0.27	1.3 / 0.03	0 / 0.00	75 / 1.23	4.0 / 0.08	3.0 / 0.08	1.3 / 0.02	0.1 / 0.01	0.0	15	Fe 0.00	86[f] / 90[g]	19	56	0			
9/18	Discontinued																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
FEATHER RIVER NEAR OROVILLE (STA. 19)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1020	1490	42	12.8	101	121	7.3/7.7	1.01[c]		4.5/0.20		0/0.00	68/1.11		1.8/0.05			0.0			81[e]	17	51	0	2	Median 21. Maximum 1700. Minimum 0.2	USGS
2/6 0930	1500	42	13.5	107	116	7.4/8.1	0.99[c]		4.9/0.21		0/0.00	62/1.02		3.7/0.10			0.1			77[e]	18	49	0	3		
3/5 1240	5020	43	12.4	100	97	7.3/7.7	0.82[c]		3.9/0.17		0/0.00	50/0.82		2.2/0.06			0.0			65[e]	17	41	0	8		
4/9 1030	13900	45	11.6	96	71	7.0/7.5	0.60[c]		3.7/0.16		0/0.00	38/0.62		1.2/0.03			0.0			47[e]	21	30	0	50		
5/9 1520	9940	54	11.4	106	60	7.3/7.5	6.6/0.33	2.1/0.17	2.5/0.11	0.3/0.01	0/0.00	32/0.52	1.0/0.02	1.8/0.05	0.0/0.00	0.0/0.00	0.0	15	ABS 0.0; PO_4 0.00	45[f]	18	25	0	4		
6/6 0800	4740	56	10.3	98	71	7.3/7.7	0.60[c]		3.2/0.14		0/0.00	39/0.64		1.0/0.03			0.0			47[e]	19	30	0	3		
7/3 0930		67	9.0	98	100	7.4/7.4	0.84[c]		4.8/0.21		0/0.00	57/0.93		0.8/0.02			0.0			68[e]	20	42	0	4		
8/14 0815		70	9.2	103	111	7.5/7.5	1.00[c]		5.6/0.24		0/0.00	69/1.13		1.8/0.05			0.1			71[e]	19	50	0	4		
9/11 1225		69	9.7	106	110	7.4/7.9	11/0.55	4.5/0.37	5.5/0.24	1.2/0.03	0/0.00	68/1.11	0.2/0.00	1.8/0.05	0.3/0.00	0.0/0.00	0.1	11	ABS 0.0; As 0.00; PO_4 0.05	69[f] 678	20	46	0	5		
10/1 0940		64	9.7	102	117	6.6/7.6	0.96[c]		5.3/0.23		0/0.00	72/1.18		1.2/0.03			0.0			78[e]	19	48	0	4		
11/1 1450		59	10.8	107	104	7.4/7.7	0.90[c]		4.7/0.20		0/0.00	62/1.02		2.1/0.06			0.0			69[e]	18	45	0	4		
12/3 1525		50	12.5	110	97	7.2/7.3	0.47[c]		3.1/0.13		0/0.00	30/0.49		1.0/0.03			0.0			38[e]	22	23	0	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
FEATHER RIVER BELOW SHANGHAI BEND (STA. 20a)

Date and time sampled P.S.T	Discharge in cfs	Temp. in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/5 1510	2100	44	12.5	102	120	7.3/7.6	1.08[c]		4.0/0.17		0/0.00	66/1.08		1.9/0.05			0.0			79[e]	14	54	0	4	Median 230. Maximum 7000. Minimum 23.	USGS
2/8 1200	4680	47	11.7	100	126	7.4/8.1	1.10[c]		4.9/0.21		0/0.00	68/1.11		3.4/0.10			0.0			83[e]	16	55	0	50		
3/15 0830	7820	46	11.7	98	100	7.4/7.9	0.86[c]		3.7/0.16		0/0.00	52/0.85		1.1/0.03			0.0			66[e]	16	43	0	25		
4/5 0945	14500	53	10.9	100	84	7.4/7.7	0.78[c]		4.2/0.18		0/0.00	44/0.72		2.0/0.06			0.0			55[e]	19	39	3	40		
5/15 0900	8220	56	10.9	104	68	7.2/7.7	8.4/0.42	1.7/0.14	2.8/0.12	0.5/0.01	0/0.00	35/0.57	1.0/0.02	2.0/0.06	0.2/0.00	0.1/0.01	0.0	14	PO_4 0.00	48[f]	17	28	0	20		
6/11 0900	5500	63	9.4	97	66	7.3/7.4	0.56[c]		2.3/0.10		0/0.00	33/0.54		2.2/0.06			0.0			44[e]	15	28	1	15		
7/12 0910	1620 est	74	7.8	91	105	7.3/7.5	0.87[c]		5.4/0.23		0/0.00	55/0.90		2.0/0.06			0.1			69[e]	21	44	0	10		
8/13 1130	988	79	8.2	101	121	7.4/7.4	1.22[c]		5.4/0.23		0/0.00	72/1.18		2.2/0.06			0.1			80[e]	16	61	2	4		
9/10 0950	1080	71	8.6	97	137	7.5/7.5	13/0.65	6.0/0.49	5.9/0.26	1.1/0.03	0/0.00	76/1.25	5.0/0.10	2.5/0.07	1.3/0.02	0.6/0.03	0.2	13	PO_4 0.00	86[f]/86[g]	18	57	0	25		
10/1 1400	1600	71	9.1	103	123	7.3/7.6	1.06[c]		5.2/0.23		0/0.00	72/1.18		1.8/0.05			0.0			81[e]	18	53	0	15		
11/1 1030	5990	58	9.8	96	109	7.1/7.5	0.91[c]		4.8/0.21		0/0.00	63/1.03		2.8/0.08			0.0			72[e]	19	46	0	10		
12/3 1120	19000est	50	11.1	98	93	7.3/7.3	0.79[c]		3.9/0.17		0/0.00	50/0.82		2.6/0.07			0.0			61[e]	18	39	0	30		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

FRESNO RIVER NEAR DAULTON (STA. NO. 113)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/7 1035	12	43	12.6	101	267	7.8	c 1.12		28 1.22		0.0 0.00	57 0.93		46 1.30			0.0				52	56	9	5	Median 6.2 Maximum 230. Minimum 0.21	
2/5 1130	28	48	11.6	99	204	7.7	c 0.99		21 .91		0.0 0.00	60 0.98		31 0.87			0.1				48	50	1	10		
3/5 1445	181	52	10.7	93	151	7.6	c 0.98		12 0.52		0.0 0.00	57 0.93		12 0.34			0.1				37	44	0	15		
4/2 1[illegible]0	186	64	9.1	84	158	7.6	c 0.72		10 0.44		0.0 0.00	49 0.80		11 0.31			0.0				38	36	0	10		
5/1 1[illegible]	1[illegible]	66	9.4	100	79	7.5	6.8 0.34	1.2 0.10	7.5 0.33	1.1 0.03	0.0 0.00	32 0.52	1.0 0.02	7.2 0.20	0.2 0.00	0.2 0.01	0.0	18	PO_4 0.10	59	41	22	0	9		
6/7 1[illegible]5	5[illegible]	73	9.8	98	57	7.4	c 0.30		5.0 0.22		0.0 0.00	21 0.34		7.2 0.20			0.1				42	15	0	5		
7/12 1[illegible]15	0.[illegible]	78	7.8	94	3	7.5	c 0.60		9.6 .42		0.0 0.00	30 0.49		15 0.42			0.0				46	25	0	55		
8/5 [illegible]30	0	78	8.6	104	169	7.6	c 0.82		19 0.83		0.0 0.00	43 0.70		28 0.79			0.0				50	41	6	2		
[illegible]	No sample collected.																									
1[illegible]/	No sample collected.																									
11/[illegible] 1[illegible]	[illegible]	68	9.1	100	262	7.8	c 1.04		30 1.30		0.0 0.00	58 0.95		49 1.38			0.0				56	52	4	2		
12/5 1[illegible]0	1	[illegible]1	11.0	98	227	7.7	c 1.02		25 1.09		0.0 0.00	56 0.92		39 1.10			0.1				52	51	5	3		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
GRANT LINE CANAL AT TRACY ROAD BRIDGE (STA. 103a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962	Tidal																									
1/10 1425		46	10.9	91	1270	7.7/8.3	—/5.84[c]		149/6.48		2/0.07	189/3.10		233/6.57			0.4			698[e]	53	292	134	8	Median 230. Maximum >7000. Minimum 13.	USGS
2/13 1440		52	7.5	68	654	7.3/7.3	—/2.96[c]		74/3.22		0/0.00	116/1.90		92/2.60			0.4			360[e]	52	148	53	15		
3/7 1355		54	9.0	84	497	7.3/7.6	—/2.20[c]		58/2.52		0/0.00	92/1.51		58/1.64			0.3			273[e]	53	110	35	25		
4/9 1450		67	10.8	117	711	7.6/7.6	—/3.22[c]		83/3.61		0/0.00	118/1.93		110/3.10			0.3			391[e]	53	161	64	25		
5/7 1305		74	11.1	130	455	[illegible].3/7.9	26/1.30	11/0.94	45/1.96	2.5/0.06	0/0.00	91/1.49	31/0.65	74/2.09	0.1/0.00	0.1/0.01	0.0	14	PO_4 0.00	249[f]	46	112	37	25		
6/5 1040		66	9.1	98	230	7.1/7.3	—/1.08[c]		23/1.00		0/0.00	56/0.92		31/0.87			0.0			126[e]	48	54	8	15		
7/10 1030		75	9.5	112	985	7.6/7.6	—/4.56[c]		118/5.13		0/0.00	165/2.70		187/5.28			0.3			542[e]	53	228	93	50		
8/8 0945		74	9.2	107	1090	7.7/8.0	—/5.14[c]		132/5.74		0/0.00	190/3.11		205/5.78			0.2			600[e]	53	257	101	15		
9/6 1330		75	10.0	118	902	8.1/8.1	50/2.50	20/1.66	105/4.57	4.8/0.12	0/0.00	180/2.95	57/1.19	164/4.63	1.5/0.02	0.1/0.01	0.2	25	PO_4 0.30	517[f] 515[g]	52	208	60	25		
10/4 1345		68	10.7	117	866	8.3/7.8	—/3.98[c]		104/4.52		0/0.00	179/2.93		143/4.03			0.1			476[e]	53	199	52	6		
11/14 1000		60	7.8	78	704	7.4	—/3.13[c]		83/3.61		0/0.00	132/2.16		118/3.33			0.1			387[e]	54	156	48	10		
12/11 1200		51	8.9	79	434	7.3/7.5	—/1.88[c]		46/2.00		0/0.00	77/1.26		70/1.97			0.1			239[e]	52	94	31	10		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
INDIAN CREEK NEAR CRESCENT MILLS (STA. 17d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/8 1245	71	41	11.9	93	175	7.2/7.5	—/1.49[c]		8.8/0.38		0/0.00	96/1.57		4.0/0.11			0.0			119[e]	20	74	0	[illegible]	Median 62. Maximum 7000. Minimum 2.3	USGS
2/6 1140	98	40	11.0	85	169	7.2/7.9	—/1.41[c]		8.6/0.37		0/0.00	69/1.13		6.1/0.17			0.1			115[e]	21	70	13	10		
3/12 1155	391	39	10.8	82	125	7.2/7.6	—/1.00[c]		5.7/0.25		0/0.00	67/1.10		2.8/0.08			0.0			85[e]	20	50	0	10		
4/5 1020	2620	42	11.2	89	69	6.9/7.3	—/0.50[c]		4.6/0.20		0/0.00	36/0.59		1.2/0.03			0.2			47[e]	26	28	0	220		
5/9 1300	985	52	9.7	88	72	7.2/7.5	8.0/0.40	1.7/0.14	3.7/0.16	1.0/0.03	0/0.00	40/0.66	2.0/0.04	0.5/0.01	0.2/0.00	0.1/0.01	0.4	20	PO_4 0.05	58[f]	22	27	0	30		
6/6 1015	295	60	8.7	87	105	7.2/7.2	—/0.84[c]		11/0.48		0/0.00	59/0.97		1.0/0.03			0.0			72[e]	36	42	0	10		
7/3 0730	36	62	7.1	73	184	7.1/7.3	—/1.50[c]		9.6/0.42		0/0.00	102/1.67		3.4/0.10			0.1			125[e]	22	75	0	4		
8/14 1045	19	66	8.0	86	205	7.2/7.2	—/1.72[c]		11/0.48		0/0.00	121/1.98		3.8/0.11			0.2			140[e]	22	86	0	3		
9/11 0900	19	56	7.8	74	207	7.1/7.5	23/1.15	6.9/0.57	11/0.48	1.0/0.03	0/0.00	124/2.03	8.8/0.18	5.7/0.16	0.1/0.00	0.1/0.01	0.2	25	As 0.00; ABS 0.0; PO_4 0.20	143[f]/150[g]	22	86	0	10		
10/18 0950	1150	45	9.8	81	95	7.2/7.3	—/0.84[c]		4.7/0.20		0/0.00	50/0.82		2.0/0.06			0.0			65[e]	19	42	1	50		
11/21 1020	192	42	11.0	87	139	7.0/7.9	—/1.11[c]		7.2/0.31		0/0.00	80/1.31		3.8/0.11			0.0			95[e]	22	55	0	4		
12/18 1500	1400	45	10.5	86	94	7.1/7.9	—/0.75[c]		4.7/0.20		0/0.00	53/0.87		2.0/0.06			0.0			64[e]	21	38	0	25		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
INDIAN SLOUGH NEAR BRENTWOOD (STA. 107)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1900	Tidal																									
1/11 1100		48	12.3	100	1350	7.7/8.3	7.20[c]		157/6.83		5/0.17	330/5.41		184/5.19			2.3			752[e]	49	360	81	25	Median 50. Maximum 7000. Minimum 1.3	USGS
2/15 1130		54	6.3	58	1200	7.3/7.4	5.52[c]		150/6.52		0/0.00	177/2.90		190/5.36			1.5			668[e]	54	276	131	40		
3/ 1130		60	9.2	92	1350	7.6/8.2	7.82[c]		149/6.48		0/0.00	355/5.82		175/4.94			2.4			752[e]	45	391	100	10		
4/11 1150		66	8.1	87	818	7.6/7.9	3.68[c]		98/4.26		0/0.00	138/2.26		132/3.72			1.1			456[e]	54	184	71	45		
5/8 1250		72	6.8	78	246	7.2/7.7	16/0.80	7.3/0.60	21/0.91	2.0/0.05	0/0.00	68/1.11	22/0.46	27/0.76	0.7/0.01	0.3/0.02	0.5	15	PO_4 0.00	144[f]	39	70	14	25		
6/ 1230		74	7.1	83	416	8.4/7.4	1.98[c]		44/1.91		0/0.00	98/1.61		54/1.52			0.5			232[e]	49	99	19	85		
7/10 1300		78	5.6	68	237	7.3/7.7	1.30[c]		22/0.96		0/0.00	75/1.23		24/0.68			0.1			132[e]	42	65	3	30		
8/ 1105		77	7.1	86	[illegible]	[illegible]/7.7	1.73[c]		48/2.09		0/0.00	92/1.51		58/1.64			0.1			215[f]	55	87	1[illegible]	[illegible]		
9/6 1055		74	6.5	76	438	7.3/7.6	18/0.90	12/1.00	54/2.35	2.3/0.05	0/0.00	100/1.64	27/0.56	70/1.97	1.3/0.02	0.2/0.01	0.2	15	PO_4 0.15	249[f] 290[f]	51	9[illegible]	15	50		
10/4 1005		67	6.5	70	539	7.3/7.6	2.36[c]		66/2.87		0/0.00	116/1.90		86/2.43			0.5			300[e]	55	118	23	25		
11/13 1245		60	9.5	95	1200	8.1/8.0	6.56[c]		134/5.83		0/0.00	306/5.02		157/4.43			2.0			668[e]	47	328	77	6		
12/10 1220		53	10.8	99	1350	8.1/8.1	6.18[c]		170/7.40		0/0.00	337/5.52		180/5.08			2.2			752[e]	54	309	33	7		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
ITALIAN SLOUGH NEAR MOUTH (STA. 106)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/11 1050		40	7.9	61	1220	7.4/7.9	5.76[c]		144/6.26		0/0.00	176/2.88		212/5.98			0.5			697[e]	52	288	144	15	Median 210. Maximum 2400 Minimum 6.2	USGS
2/15 1250		52	8.1	73	1610	7.1/7.4	6.96[c]		198/8.61		0/0.00	149/2.44		326/9.20			1.9			919[e]	55	348	226	40		
3/8 1330		54	8.6	80	898	7.4/7.6	3.46[c]		113/4.92		0/0.00	106/1.74		158/4.46			1.0			513[e]	59	173	86	30		
4/11 1310		68	10.2	112	592	7.6/7.6	2.80[c]		63/2.74		0/0.00	88/1.44		88/2.48			0.4			338[e]	49	140	68	15		
5/8 1330		70	7.0	78	304	7.1/7.6	17/0.85	8.9/0.73	28/1.22	2.2/0.06	0/0.00	68/1.11	30/0.62	39/1.10	1.0/0.02	0.2/0.01	0.1	14	PO_4 0.03	173[f]	43	79	23	25		
6/6 1330		72	6.7	77	415	8.4/7.8	1.98[c]		42/1.83		0/0.00	94/1.54		64/1.81			0.1			237[e]	48	99	22	30		
7/10 1215		78	6.6	80	231	7.3/7.5	1.32[c]		20/0.87		0/0.00	71/1.16		24/0.68			0.0			132[e]	40	66	8	45		
8/7 1130		74	7.9	92	293	7.5/7.7	1.46[c]		34/1.48		0/0.00	80/1.31		40/1.13			0.0			167[e]	50	73	7	25		
9/6 1400		75	7.7	91	336	7.4/7.7	16/0.80	9.7/0.80	40/1.74	1.6/0.04	0/0.00	86/1.41	22/0.46	51/1.44	1.3/0.02	0.2/0.01	0.0	15	PO_4 0.15	192[f]/196[g]	51	80	9	25		
10/4 1045		68	7.8	86	394	7.4/7.6	1.82[c]		46/2.00		0/0.00	93/1.52		61/1.72			0.1			225[e]	52	91	15	10		
11/13 1355		62	7.9	81	869	7.4/8.0	3.76[c]		101/4.39		0/0.00	124/2.03		154/4.34			0.5			496[e]	54	188	86	10		
12/10 1255		51	6.6	59	729	7.3/7.6	3.00[c]		82/3.57		0/0.00	113/1.85		125/3.53			0.5			416[e]	54	150	57	10		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE E-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KAWEAH RIVER BELOW TERMINUS DAM (STA. NO. 35)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										USGS
[illegible]	---	[illegible]	[illegible]	[illegible]	130	7.8	c 1.04		6.6 0.29		0.0 0.00	65 1.07		6.0 0.17			0.1				22	52	0	3	Median 13. Maximum 230. Minimum 0.06	
[illegible]	---	67	11.[illegible]	[illegible]	[illegible]	7.7	c 0.72		5.2 0.23		0.0 0.00	46 0.75		3.8 0.11			0.2				24	36	0	15		
[illegible]	---	[illegible]	1[illegible]	[illegible]	120	7.7	c [illegible]		6.1 0.27		0.0 0.00	60 0.98		4.0 0.11			0.0				[illegible]	48	0	10		
[illegible] 1300	---	[illegible]	11.1	104	45	7.4	c 0.36		2.6 0.11		0.0 0.00	11 0.38		1.2 0.03			0.0				23	18	0	6		
[illegible]	---	56	10.[illegible]	101	28	7.3	3.6 0.18	0.1 0.01	2.1 0.09	0.6 0.02	0.0 0.00	13 0.21	1.0 0.02	1.5 0.04	0.0 0.00	0.1 0.01	0.0	7.8	PO_4 0.20	23	30	10	0	15		
[illegible]	---	[illegible]	10.5	104	31	7.1	c 0.62		1.3 0.06		0.0 0.00	15 0.25		0.7 0.02			0.0				21	11	0	3		
7/11 [illegible]	[illegible]	73	8.7	[illegible]	41	7.4	c 0.31		2.4 0.10		0.0 0.00	20 0.33		2.2 0.06			0.0				24	16	0	3		
[illegible] 1225	---	81	10.7	134	65	7.5	c 0.54		3.4 0.15		0.0 0.00	33 0.54		2.5 0.07			0.0				22	27	0	2		
[illegible] 1400	---	82	11.4	143	91	8.0	11 0.55	1.3 0.11	5.3 0.23	1.4 0.04	0.0 0.00	44 0.72	3.8 0.08	3.8 0.11	1.5 0.02	0.0 0.00	0.0	9.5	PO_4 0.00	60	25	33	0	-		
10/2 1330	8	67	7.5	81	114	7.6	c 0.89		5.8 0.25		0.0 0.00	56 0.92		7.6 0.21			0.1			60	22	44	0	15		
11/1 1620	6	64	11.6	121	122	8.0	c 0.92		6.1 0.27		0.0 0.00	60 0.98		5.5 0.16			0.0				23	46	0	3		
12/5 1245	16	50	11.0	97	139	7.7	c 1.04		6.6 0.29		0.0 0.00	66 1.08		6.0 0.17			0.0			76	22	52	0	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KERN RIVER NEAR BAKERSFIELD (STA. NO. 36)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1035	186	45	12.8	105	265	8.0	c 1.48		28 1.22		0.0 0.00	105 1.72		17 0.48			0.3				45	74	0	3	Median 9.6 Maximum 7000. Minimum 0.3	
2/2 0845	282	43	12.0	96	239	8.0	c 1.30		26 1.13		0.0 0.00	98 1.61		14 0.39			0.2				46	65	0	5		
3/6 1745	516	50	10.8	96	211	7.9	c 1.22		19 0.83		0.0 0.00	91 1.49		9.8 0.28			0.1				40	61	0	11		
4/10 1020	1569	60	9.4	94	176	7.8	c 1.10		17 0.74		0.0 0.00	81 1.33		6.8 0.19			0.2				40	55	0	30		
5/8 1120	1569	62	9.5	97	95	7.6	9.1 0.45	1.1 0.09	8.7 0.38	1.5 0.04	0.0 0.00	39 0.64	7.0 0.15	5.2 0.15	0.0 0.00	0.3 0.02	0.1	13	ABS 0.0 AS 0.01 PO_4 0.3	65	40	27	0	15		
6/15 0700	1954	59	9.1	90	77	7.2	c 0.45		6.4 0.28		0.0 0.00	33 0.54		2.7 0.08			0.1				38	22	0	7		
7/11 0730	1949	68	8.4	92	73	7.4	c 0.44		6.4 0.28		0.0 0.00	32 0.52		3.0 0.08			0.1				39	22	[illegible]	5		
8/8 0900	803	72	8.0	92	91	7.5	c 0.54		7.9 0.34		0.0 0.00	39 0.64		4.2 0.12			0.0				34	27	0	3		
9/5 1030	500	72	8.3	95	109	7.5	12 0.60	1.0 0.08	9.5 0.41	1.2 0.03	0.0 0.00	49 0.80	7.0 0.15	4.2 0.12	0.9 0.01	0.2 0.01	0.1	5.0	ABS 0.0 AS 0.01 PO_4 0.15	65	37	34	0	4		
10/4 0715	383	65	7.4	78	141	7.7	c 0.92		13 0.57		0.0 0.00	60 0.98		8.6 0.24			0.1				36	46	[illegible]	10		
11/7 1115	49	58	9.6	94	183	8.0	c 0.96		18 0.78		0.0 0.00	74 1.21		8.8 0.25			0.2				45	48	0	2		
12/5 1045	211	48	9.1	87	195	7.8	a 1.08		18 0.78		0.0 0.00	82 1.34		9.0 0.25			0.2				42	54	0	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KERN RIVER BELOW ISABELLA DAM (STA. NO. 36a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																									Median 22. Maximum 7000. Minimum 0.092	USGS
1/2 1350	19	47	10.6	91	401	7.8	[c] 2.54		38 / 1.65		0.0 / 0.00	192 / 3.15		1.4 / 0.51			0.4				39	127	0	3		
2/5 1100	26	44	10.0	82	411	8.1	[c] 2.54		39 / 1.70		0.0 / 0.00	144 / 3.18		1.8 / 0.51			0.4				40	127	0	7		
3/2 1400	---	47	10.5	89	280	7.5	[c] 1.70		26 / 1.13		0.0 / 0.00	130 / 2.13		11 / 0.31			0.3				40	85	0	8		
4/2 1600	---	53	9.7	89	254	7.5	[c] 1.56		24 / 1.04		0.0 / 0.00	116 / 1.90		13 / 0.37			0.2				40	78	0	20		
5/1 1400	773	57	[illegible].2	[illegible]9	113	7.8	11 / 0.55	1.3 / 0.11	10 / 0.44	1.6 / 0.04	0.0 / 0.00	49 / 0.80	9.0 / 0.19	3.9 / 0.11	0.0 / 0.00	0.2 / 0.01	0.2	13	PO_4 0.35	74	39	33	0	36		
6/1 1030	---	59	9.3	92	96	6.8	[c] 0.58		7.8 / 0.34		0.0 / 0.00	44 / 0.72		3.2 / 0.09			0.1				37	29	0	6		
7/2 0930	1380	63	8.8	91	66	7.1	[c] 0.40		6.0 / 0.26		0.0 / 0.00	28 / 0.46		3.0 / 0.08			0.0				37	20	0	8		
8/1	---	67	8.5	92	72	6.8	[c] 0.52		5.9 / 0.26		0.0 / 0.00	32 / 0.52		3.0 / 0.08			0.0				33	26	0	2		
9/4 0930	205	62	9.0	92	151	8.1	17 / 0.85	2.3 / 0.19	12 / 0.52	1.3 / 0.03	0.0 / 0.00	81 / 1.33	7.4 / 0.15	5.2 / 0.15	0.6 / 0.01	0.1 / 0.01	0.1	15	PO_4 0.05	101	33	52	0	2		
10/1 0930	116	68	7.6	83	120	6.9	[c] 0.64		11 / 0.48		0.0 / 0.00	50 / 0.82		8.5 / 0.24			0.3				43	32	0	15		
11/1 1100	---	62	8.4	86	113	7.1	[c] 0.72		8.3 / 0.36		0.0 / 0.00	54 / 0.89		4.0 / 0.11			0.1				33	36	0	2		
12/3 1130	14	52	10.0	91	125	6.7	[c] 0.78		9.6 / 0.42		0.0 / 0.00	62 / 1.02		3.2 / 0.09			0.2				35	39	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KERN RIVER NEAR KERNVILLE (STA. NO. 36b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1962																										[illegible]
1/2 1300	151	42	11.4	91	187	7.8	c 1.08		18 / 0.78		0.0 / 0.0	83 / 1.36		7.6 / 0.25			0.2				42	54	0	3	Median 23. Maximum 7000. Minimum 2.3	
2/5 1015	242	41	10.5	82	171	7.9	c 0.77		17 / 0.74		0.0 / 0.00	75 / 1.23		7.2 / 0.20			0.1				43	48	0	5		
3/2 1100	---	38	12.0	89	163	7.3	c 0.76		15 / 0.65		0.0 / 0.00	72 / 1.18		2.8 / 0.08			0.1				40	48	0	7		
4/2 0900	1048	46	10.3	86	111	7.5	c 0.68		10 / 0.44		0.0 / 0.00	52 / 0.85		7.0 / 0.20			0.0				3[illegible]	3[illegible]	0	1[illegible]		
5/1 1330	1803	54	9.6	90	53	7.6	6.4 / 0.32	0.7 / 0.06	6.1 / 0.27	0.9 / 0.02	0.0 / 0.00	29 / 0.48	6.0 / 0.12	1.6 / 0.05	0.0 / 0.00	0.2 / 0.01	0.0	14	PO_4 0.05	50	40	1[illegible]	[illegible]	3[illegible]		
6/1 0945	---	55	[illegible].6	91	52	6.8	c 0.32		4.0 / 0.17		0.0 / 0.00	23 / 0.38		1.9 / 0.05			0.0				35	16	0	7		
7/2 0845	1572	58	9.2	90	43	7.4	c 0.26		3.6 / 0.16		0.0 / 0.00	23 / 0.38		2.8 / 0.08			0.0				38	13	0	12		
8/1 [illegible]	---	63	8.[illegible]	92	66	7.2	c 0.44		6.4 / 0.28		0.0 / 0.00	30 / 0.49		28 / 0.08			0.0				39	22	0	2		
9/4 1030	30	68	8.2	90	82	6.2	8.6 / 0.43	0.9 / 0.07	6.2 / 0.27	1.1 / 0.03	0.0 / 0.00	36 / 0.59	4.4 / 0.09	2.0 / 0.06	4.6 / 0.07	0.1 / 0.01	0.0	6.2	PO_4 0.50	52	34	25	0	4		
10/1 0900	---	59	9.2	91	132	7.2	c 0.90		13 / 0.57		0.0 / 0.00	58 / 0.95		8.0 / 0.23			0.2				42	40	0	8		
11/1 1030	---	53	[illegible].6	88	147	7.5	c 0.78		15 / 0.65		0.0 / 0.00	66 / 1.08		6.2 / 0.17			0.1				45	39	0	3		
12/3 1030	---	41	11.1	87	172	7.4	c 0.94		17 / 0.74		0.0 / 0.00	77 / 1.26		7.0 / 0.20			0.2				44	47	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KINGS RIVER BELOW NORTH FORK (STA. No. 33c)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																									Median 9.6 Maximum 620. Minimum 0.23	USGS
1/2 1130	246	42	11.5	92	55	7.0	c 0.39		3.4 / 0.15		0.0 / 0.00	25 / 0.41		2.4 / 0.07			0.0				28	19	0	3		
2/5 1130	413	47	11.4	96	52	7.2	c 0.32		3.5 / 0.15		0.0 / 0.00	20 / 0.33		3.2 / 0.09			0.1				32	16	0	1		
3/[illegible] 1200	---	47	10.7	91	62	7.0	c 0.42		3.6 / 0.16		0.0 / 0.00	26 / 0.43		2.2 / 0.06			0.0				28	21	0	13		
4/2 1210	1700	55	9.5	90	45	6.9	c 0.28		3.5 / 0.15		0.0 / 0.00	20 / 0.33		2.0 / 0.06			0.1				35	14	0	6		
5/1 1010	4070	54	8.0	74	24	7.0	3.2 / 0.16	0.1 / 0.01	1.8 / 0.08	0.6 / 0.02	0.0 / 0.00	11 / 0.18	1.0 / 0.02	1.0 / 0.03	0.0 / 0.00	0.3 / 0.02	0.0	7.8	PO_4 0.05	21	30	8	0	5		
6/4 1130	6232	56	10.1	97	19	6.9	c 0.13		1.2 / 0.05		0.0 / 0.00	8 / 0.13		0.4 / 0.01			0.0				28	6	0	2		
7/2 1100	4310	64	7.5	78	18	6.5	c 0.11		1.2 / 0.05		0.0 / 0.00	8 / 0.13		2.0 / 0.06			0.1				31	6	0	8		
8/1 1145	---	63	9.7	100	25	6.8	c 0.17		1.7 / 0.07		0.0 / 0.00	11 / 0.18		1.0 / 0.03			0.0				29	8	0	1		
9/3 0945	315	64	9.9	103	42	6.5	4.7 / 0.23	0.4 / 0.03	2.7 / 0.12	0.7 / 0.02	0.0 / 0.00	14 / 0.23	5.0 / 0.10	1.8 / 0.05	0.8 / 0.01	0.1 / 0.01	0.0	7.7	PO_4 0.00	31	30	13	2	1		
10/1 1115	272	66	10.5	111	49	6.9	c 0.31		3.3 / 0.14		0.0 / 0.00	20 / 0.33		2.4 / 0.07			0.0				31	16	0	15		
11/5 1200	194	58	10.0	98	56	7.4	c 0.36		3.6 / 0.16		0.0 / 0.00	24 / 0.39		2.5 / 0.07			0.0				31	18	0	1		
12/3 1100	---	46	10.2	86	62	6.9	c 0.40		3.8 / 0.17		0.0 / 0.00	25 / 0.41		2.8 / 0.08			0.0				30	20	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KINGS RIVER BELOW PEOPLES WEIR (STA. NO. 34)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/[illegible] 0[illegible]0	32	45	11.5	[illegible]	178	7.9	c 1.34		11 / 0.48		0.0 / 0.00	88 / 1.44		6.0 / 0.17			0.0				26	67	0	2	Median 62. Maximum 7000. Minimum 0.23	
2/2 1100	27	50	1[illegible].4	1[illegible]	206	8.0	c 1.60		13 / 0.57		0.0 / 0.00	101 / 1.66		7.5 / 0.21			0.0				28	75	0	3		
3/6 [illegible]00	142	55	10.0	[illegible]5	200	7.9	c 1.[illegible]		10 / 0.44		0.0 / 0.00	93 / 1.52		7.5 / 0.21			0.0				22	76	0	11		
4/10 1435	7[illegible]	61	9.6	[illegible]7	71	7.5	c 0.56		4.4 / 0.19		0.0 / 0.00	31 / 0.51		2.5 / 0.07			0.1				25	2[illegible]	3	10		
5/8 1[illegible]0	1[illegible]	62	10.0	1[illegible]3	50	7.3	5.6 / 0.28	0.6 / 0.05	3.3 / 0.14	1.0 / 0.03	0.0 / 0.00	22 / 0.37	3.0 / 0.06	2.0 / 0.06	0.0 / 0.00	0.2 / 0.01	0.0	10	ARS 0.0; PO_4 0.05	37	28	16	0	5		
6/6 1[illegible]	1[illegible]	68	9.4	102	34	6.8	c 0.24		2.4 / 0.10		0.0 / 0.00	13 / 0.21		0.6 / 0.02			0.0				28	12	1	3		
7/11 1610	1[illegible]	73	9.3	96	26	7.1	c 0.18		1.7 / 0.07		0.0 / 0.00	12 / 0.20		1.5 / 0.04			0.0				28	9	0	8		
8/8 1430	1334	68	9.3	97	28	6.8	c 0.21		1.7 / 0.07		0.0 / 0.00	12 / 0.20		1.2 / 0.03			0.1				25	10	0	3		
9/[illegible] 1510	1[illegible]	68	9.3	101	31	7.1	3.7 / 0.18	0.5 / 0.04	1.7 / 0.07	0.5 / 0.01	0.0 / 0.00	11 / 0.18	0.2 / 0.00	1.5 / 0.04	1.1 / 0.02	0.1 / 0.01	0.0	6.0	ARS 0.0; PO_4 0.05	20	23	11	2	15		
1[illegible]/4 1[illegible]20	435	67	8.9	97	60	7.3	c .60		3.3 / 0.14		0.0 / 0.00	29 / 0.48		2.6 / 0.07			0.0				26	20	0	10		
11/7 1[illegible]	99	63	9.1	94	154	8.0	c 1.14		9.0 / 0.39		0.0 / 0.00	80 / 1.31		4.5 / 0.13			0.0				25	57	0	3		
12/5 1[illegible]0	10	54	8.[illegible]	82	10[illegible]	7.5	c 0.78		5.4 / 0.23		0.0 / 0.00	52 / 0.85		2.0 / 0.06			0.0				23	39	0	2		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 9-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

KINGS RIVER BELOW PINE FLAT DAM (STA. NO. 33b)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
1/2 1345	85	45	11.8	98	50	7.3	c / 0.36		2.8 / 0.12		0.0 / 0.00	25 / 0.41		1.0 / 0.03			0.0				24	18	0	3	Median 4.2 Maximum 240. Minimum 0.23	
2/5 1345	111	50	10.6	94	60	7.0	c / 0.44		3.0 / 0.13		0.0 / 0.00	27 / 0.44		1.8 / 0.05			0.0				23	22	0	5		
3/5 1400	---	50	10.5	93	58	7.0	c / 0.42		3.0 / 0.13		0.0 / 0.00	24 / 0.39		2.0 / 0.06			0.0				24	21	1	50		
4/2 1429	1304	54	9.0	84	60	7.0	c / 0.46		3.4 / 0.15		0.0 / 0.00	25 / 0.41		1.8 / 0.05			0.1				25	23	3	9		
5/1 1300	3056	54	10.0	94	48	7.5	5.6 / 0.28	0.5 / 0.04	3.4 / 0.15	1.0 / 0.03	0.0 / 0.00	21 / 0.34	5.0 / 0.10	1.3 / 0.04	0.0 / 0.00	0.2 / 0.01	0.0	11	PO_4 0.15	31	30	16	0	5		
6/4 1400	6016	51	10.0	90	37	6.9	c / 0.18		3.1 / 0.13		0.0 / 0.00	12 / 0.20		0.8 / 0.02			0.0				41	9	0	2		
7/2 1300	7180	56	9.0	86	22	7.0	c / 0.13		1.4 / 0.06		0.0 / 0.00	10 / 0.16		2.0 / 0.06			0.0				32	6	0	3		
8/1 1330	---	61	11.5	116	19	6.5	c / 0.13		1.1 / 0.05		0.0 / 0.00	8.5 / 0.14		0.8 / 0.02			0.0				28	6	0	1		
9/3 1130	2302	62	9.7	99	22	7.1	2.5 / 0.12	0.5 / 0.04	1.2 / 0.05	0.2 / 0.01	0.0 / 0.00	10 / 0.16	1.6 / 0.03	0.8 / 0.02	0.1 / 0.00	0.1 / 0.01	0.0	5.8	PO_4 0.05	18	23	8	0	-		
10/1 1240	1038	68	10.0	110	31	6.9	c / 0.20		1.7 / 0.07		0.0 / 0.00	14 / 0.23		1.2 / 0.03			0.0				26	10	0	10		
11/5 1400	50	66	11.0	30	118	6.7	c / 0.21		1.4 / 0.06		0.0 / 0.00	14 / 0.23		1.2 / 0.03			0.0				22	10	0	2		
12/3 1320	---	60	11.2	102	31	7.4	c / 0.21		1.6 / 0.07		0.0 / 0.00	13 / 0.21		0.2 / 0.01			0.0				25	10	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
LINDSEY SLOUGH NEAR RIO VISTA (STA. 110)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962	Tidal																									
1/8 1410		50	9.4	83	235	7.3/7.8	1.58[c]		17/0.74		0/0.00	94/1.54		14/0.39			0.1			143[e]	32	79	2	70	Median 95. Maximum >7000. Minimum 6.2	USGS
2/7 1215		49	10.6	92	244	7.6/8.1	1.64[c]		18/0.78		0/0.00	97/1.59		16/0.45			0.1			149[e]	32	82	2	40		
3/8 1140		53	9.3	85	308	7.5/7.8	1.80[c]		30/1.31		0/0.00	96/1.57		19/0.54			0.3			188[e]	42	90	11	90		
4/9 1200		64	8.9	93	288	7.4/7.7	1.94[c]		21/0.91		0/0.00	112/1.84		14/0.39			0.4			175[e]	32	97	5	60		
5/3 1200		66	9.1	98	201	7.5/7.6	16/0.80	6.8/0.56	14/0.61	1.6/0.04	0/0.00	80/1.31	17/0.35	14/0.39	0.9/0.01	0.2/0.01	0.2	15	As 0.01; ABS 0.0; PO_4 0.15	125[f]	30	68	2	220		
6/6 1030		69	8.1	90	237	7.3/8.1	1.56[c]		18/0.78		0/0.00	87/1.43		15/0.42			0.1			144[e]	33	78	7	50		
7/11 1240		72	7.7	88	201	7.5/7.6	1.34[c]		15/0.65		0/0.00	87/1.43		11/0.31			0.1			122[e]	33	67	0	50		
8/2 1400		71	8.9	101	201	7.4/7.7	1.33[c]		16/0.70		0/0.00	90/1.48		11/0.31			0.0			122[e]	34	67	0	50		
9/5 1500		70	8.4	95	208	7.5/7.9	14/0.70	8.5/0.70	17/0.74	1.3/0.03	0/0.00	98/1.61	10/0.21	12/0.34	1.6/0.03	0.1/0.01	0.0	19	PO_4 0.25	132[f]/134[g]	34	70	0	35		
10/3 0910		66	8.2	88	208	7.4/7.9	1.52[c]		15/0.65		0/0.00	98/1.61		11/0.31			0.0			127[e]	30	76	0	50		
11/8 1040		60	5.7	57	256	7.3/7.7	1.68[c]		19/0.83		0/0.00	101/1.66		17/0.48			0.1			156[e]	33	84	1	30		
12/5 1040		51	8.9	79	253	7.3/7.6	1.75[c]		18/0.78		0/0.00	101/1.66		15/0.42			0.1			154[e]	31	88	5	40		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn) zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
LITTLE POTATO SLOUGH AT TERMINOUS (STA. 99)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/10 1005		45	10.0	83	219	7.3/7.7	—/1.56[c]		14/0.61		0/0.00	86/1.41		17/0.48			0.0			131[e]	28	78	7	20	Median 230. Maximum 7000. Minimum 13.	USGS
2/13 1150		51	9.8	[illegible]	233	7.1/7.6	—/1.66[c]		14/0.61		0/0.00	69/1.13		16/0.45			0.3			140[e]	27	83	26	50		
3/7 1500		51	10.2	91	244	7.1/7.7	—/1.68[c]		14/0.61		0/0.00	56/0.92		12/0.34			0.0			146[e]	27	84	38	40		
4/5 1000		59	9.4	93	142	7.1/7.3	—/0.94[c]		8.8/0.38		0/0.00	47/0.77		9.2/0.26			0.1			85[e]	29	47	8	18		
5/9 1115		65	8.2	87	137	6.4/7.3	12/0.60	4.9/0.40	9.0/0.39	1.1/0.03	0/0.00	52/0.85	9.0/0.19	12/0.34	0.4/0.01	0.1/0.01	0.1	16	PO_4 0.15	91[f]	27	50	7	10		
6/11 1010		66	9.7	104	117	6.4/7.0	—/0.70[c]		7.3/0.32		0/0.00	27/0.44		8.1/0.23			0.0			70[e]	30	38	10	15		
7/11 1345		73	7.9	91	182	7.4/7.4	—/1.20[c]		14/0.61		0/0.00	78/1.28		12/0.34			0.0			109[e]	34	60	0	75		
8/6 1245		73	8.2	95	221	7.4/7.5	—/1.42[c]		17/0.74		0/0.00	82/1.34		23/0.65			0.0			133[e]	34	71	4	9		
9/4 1200		72	7.7	88	228	7.3/7.5	16/0.80	9.0/0.74	17/0.74	1.1/0.03	0/0.00	93/1.52	12/0.25	20/0.56	1.1/0.02	0.1/0.01	0.1	19	PO_4 0.25	141[f]/136[g]	32	77	1	8		
10/8 0850		65	7.6	81	205	7.3/7.5	—/1.38[c]		14/0.61		0/0.00	84/1.38		19/0.54			0.0			123[e]	31	69	0	6		
11/14 1050		58	7.5	73	190	7.3/7.7	—/1.40[c]		13/0.57		0/0.00	72/1.18		17/0.48			0.0			114[e]	29	70	0	40		
12/4 1015		51	9.3	83	167	7.1/7.4	—/1.14[c]		10/0.44		0/0.00	61/1.00		16/0.45			0.0			100[e]	28	57	7	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5)

McCLOUD RIVER ABOVE SHASTA LAKE (STA. 18)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1/[illegible] 1:45	1,27[illegible]	45	11.7	[illegible]	[illegible]	7.2 / 7.[illegible]	[illegible] / 0.[illegible]3		3.[illegible] / 0.17		0 / 0.00	59 / 0.97		1.5 / 0.03			0.[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Max[illegible] 230.	[illegible]
2/12 1:[illegible]	[illegible]	45	11.4	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 0.[illegible]8		3.2 / 0.14		0 / 0.00	40 / 0.[illegible]		1.[illegible] / 0.03			0.[illegible]				[illegible]	[illegible]	1	[illegible]	Minimum 0.06	
3/12 1:[illegible]	1,[illegible]	45	11.[illegible]	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 0.[illegible]		3.7 / 0.16		0 / 0.00	[illegible] / 0.[illegible]		2.0 / 0.06			0.[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	M[illegible] 6.2	
[illegible] 1:[illegible]	2,[illegible]	[illegible]	11.3	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 0.72[illegible]		3.7 / 0.16		[illegible] / [illegible]	[illegible] / 0.[illegible]		2.0 / 0.06			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]/1 1:[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible] / 7.[illegible]	11 / 0.55	2.[illegible] / 0.24	4.3 / 0.19	0.[illegible] / 0.02	[illegible] / [illegible]	54 / 0.89	2.[illegible] / [illegible]	1.[illegible] / 0.04	[illegible] / 0.0[illegible]	0.[illegible] / 0.00	[illegible]	[illegible]	PO_4 0.05	[illegible]2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]/11 1:[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.7 / 7.[illegible]	[illegible] / 0.2[illegible]		4.9 / 0.21		[illegible] / [illegible]	[illegible] / [illegible]82		[illegible] / 0.10			[illegible]				[illegible]	[illegible]				
[illegible] 1:[illegible]	1,1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible] / 7.1[illegible]	[illegible] / 0.7[illegible]		[illegible] / 0.24		0 / [illegible]	54 / 0.89		1.[illegible] / 0.03			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]/13 1:[illegible]	1,[illegible]	54	10.4	[illegible]	[illegible]	7.7 / 7.[illegible]	[illegible] / 0.80		5.5 / 0.24		[illegible] / 0.00	56 / 0.92		[illegible] / [illegible].01			[illegible]				[illegible]	[illegible]		[illegible]		
[illegible]/12 [illegible]	[illegible]	53	10.[illegible]	[illegible]	[illegible]	7.7 / 7.[illegible]	4.2 / 0.4[illegible]	[illegible] / 0.2[illegible]	[illegible] / 0.23	1.1 / 0.03	[illegible] / 0.00	55 / 0.90	1.0 / 0.02	1.5 / 0.04	[illegible] / [illegible]	0.[illegible] / 0.0[illegible]	0.[illegible]	[illegible]	PO_4 [illegible]	[illegible]2[illegible]	[illegible]	[illegible]				
10/3 [illegible]	[illegible]	51	11.2	100	[illegible]	7.[illegible] / 7.[illegible]	[illegible] / 0.80		5.4 / 0.23		0 / 0.00	58 / 0.95		0.8 / 0.02			[illegible]				[illegible]	[illegible]				
11/14 1:45	1,14[illegible]	47	11.7	[illegible]	47	7.3 / 7.[illegible]	[illegible] / 0.79		5.7 / 0.25		0 / 0.00	55 / 0.90		2.0 / 0.07			0.0				[illegible]	[illegible]				
12/11 [illegible]	1,3[illegible]	45	12.2	101	[illegible]	7.3 / 7.[illegible]	[illegible] / 0.77		4.0 / 0.17		0 / 0.00	57 / 0.93		0.5 / 0.01			[illegible]				1[illegible]	[illegible]				

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MERCED RIVER BELOW EXCHEQUER DAM (STA. NO 32a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/10 1115	35	50	11.9	106	105	7.8	c 103		3.7 / 0.16		0.0 / 0.00	53 / 0.87		5.5 / 0.16			0.0				13	51	8	9	Median 18. Maximum 1300. Minimum 0.06	
2/	Sample broken in transit																									
3/7 1217	1453	47	10.6	90	81	7.3	c 0.66		2.6 / 0.11		0.0 / 0.00	33 / 0.54		2.2 / 0.06			0.0				14	33	6	60		
4/11 0935	175[illegible]	61	10.4	93	76	7.4	c 0.68		3.3 / 0.14		0.0 / 0.00	32 / 0.52		2.4 / 0.06			0.1				17	34	8	10		
5/10 1130	5[illegible]0	57	8.7	84	41	7.3	4.1 / 0.20	1.2 / 0.10	2.0 / 0.09	0.7 / 0.02	0.0 / 0.00	18 / 0.30	2.0 / 0.04	2.0 / 0.06	0.0 / 0.00	0.2 / 0.01	0.1	8.6	PO_4 0.05	30	22	15	0	5		
6/8 0910	3[illegible]	53	10.8	99	28	7.0	c 0.20		1.3 / 0.06		0.0 / 0.00	13 / 0.21		0.6 / 0.02			0.0				23	10	0	3		
7/13 0830	---	57	10.0	97	21	7.1	c 0.16		1.6 / 0.07		0.0 / 0.00	10 / 0.16		2.2 / 0.06			0.0				30	8	0	4		
8/7 0[illegible]5	---	61	9.0	91	19	6.8	c 0.15		1.3 / 0.06		0.0 / 0.00	10 / 0.16		0.8 / 0.02			0.0				29	8	0	2		
9/4 1145	1376	67	6.4	69	22	6.4	1.4 / 0.07	0.7 / 0.06	1.2 / 0.05	0.2 / 0.01	0.0 / 0.00	9 / 0.15	0.2 / 0.00	0.6 / 0.02	0.3 / 0.00	0.2 / 0.01	0.0	5.6	PO_4 0.05	14	26	7	0	6		
10/5 0[illegible]55	39	70	7.7	96	66	7.3	c 0.56		2.4 / 0.10		0.0 / 0.00	30 / 0.49		2.8 / 0.08			0.0				15	28	3	20		
11/[illegible] 1000	50	65	7.2	97	75	7.4	c 0.59		2.7 / 0.13		0.0 / 0.00	36 / 0.59		3.0 / 0.08			0.0				18	30	0	7		
12/7 0915	42	52	10.0	91	77	7.6	c 0.60		2.7 / 0.12		0.0 / 0.00	34 / 0.56		2.5 / 0.07			0.0				17	30	2	7		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MERCED RIVER NEAR STEVINSON (STA. NO. 32)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/11 1345	101	50	11.7	104	288	8.2	c 1.77		26 / 1.13		0.0 / 0.00	134 / 2.20		15 / 0.42			0.0				39	80	0	4	Median 140. Maximum 7000. Minimum 0.2	
2/8 1045	111	54	9.4	88	274	8.1	c 1.65		25 / 1.07		0.0 / 0.00	125 / 2.05		14 / 0.39			0.0				40	83	0	10		
3/1 1030	1310	48	10.9	95	190	7.3	c 0.78		4.5 / 0.20		0.0 / 0.00	42 / 0.69		2.8 / 0.08			0.0				20	30	5	10		
4/5 1240	390	65	9.0	95	165	7.8	c 1.08		13 / 0.57		0.0 / 0.00	74 / 1.21		8.6 / 0.24			0.0				37	41	0	20		
5/1 1230	180	64	9.8	102	188	8.1	14 / 0.70	5.1 / 0.42	17 / 0.74	2.0 / 0.05	0.0 / 0.00	80 / 1.31	11 / 0.23	9.4 / 0.27	1.6 / 0.03	0.2 / 0.01	0.0	20	ABS 0.0 PO_4 1.0	112	34	56	0	15		
6/5 1130	2680	62	9.7	99	40	7.0	c 0.29		2.0 / 0.09		0.0 / 0.00	19 / 0.31		0.8 / 0.02			0.0				24	15	0	15		
7/3 1100	402	74	7.6	88	172		c 1.10		17 / 0.74		0.0 / 0.00	7.8 / 1.28		10 / 0.28			0.0				40	55	0	1		
8/9 0715	104	73	7.6	87	226	7.6	c 1.28		23 / 1.00		0.0 / 0.00	102 / 1.67		15 / 0.42			0.1				44	[illegible]		0		
9/7 1430	150	75	7.8	116	234	8.0	16 / 0.80	6.1 / 0.50	26 / 1.13	1.8 / 0.05	0.0 / 0.00	105 / 1.72	11 / 0.23	14 / 0.39	4.6 / 0.07	0.2 / 0.01	0.0	24	ABS 0.0 PO_4 0.20 As 0.01	156	46	66		5		
10/5 1200	173	67	9.4	102	200	7.9	c 1.36		20 / 0.87		0.0 / 0.00	97 / 1.59		14 / 0.39			0.0				39	68	0	15		
11/8 1300	120	62	11.0	112	320	7.9	c 1.88		34 / 1.48		0.0 / 0.00	150 / 2.46		19 / 0.54			0.0				44	54		1		
12/6 1245	112	54	10.2	95	324	8.0	c 1.84		32 / 1.39		0.0 / 0.00	143 / 2.34		19 / 0.54			0.0				43	62	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MILL CREEK NEAR MOUTH (STA. 88)

Date and time sampled P.S.T. 1962	Discharge in cfs Est. 10 Sept. [illegible]	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/12 [illegible]	[illegible]	43	11.[illegible]	[illegible]	20[illegible]	7.3 / 7.6	[illegible] / 1.10[c]		17 / 0.74		0 / 0.00	54 / 0.89		22 / 0.62			0.[illegible]				39	99	14	2	Maximum 2,400.	USGS
[illegible]	[illegible]	49	11.0	[illegible]	93	7.3 / 7.5	[illegible] / 0.21[c]		8.1 / 0.27		0 / 0.00	38 / 0.62		5.2 / 0.15			0.2				31	3[illegible]	[illegible]	40	Minimum 0.23	
[illegible] 12 [illegible]	[illegible]	45	11.[illegible]	[illegible]	147	7.3 / 7.6	[illegible] / 0.42[c]		11 / 0.48		0 / 0.00	54 / 0.89		12 / 0.34			0.4				34	46	2	4	Median [illegible].	
[illegible]	[illegible]	52	[illegible]	[illegible]	[illegible]	7.3 / 7.[illegible]	[illegible] / 0.24[c]		8.8 / 0.38		0 / 0.00	34 / 0.56		8.2 / 0.23			0.0				37	32	4	[illegible]		
[illegible]	[illegible]	54	[illegible]	[illegible]	114	7.2 / 7.7	8.0 / 0.40	3.5 / 0.29	9.1 / 0.40	2.0 / 0.05	0 / 0.00	37 / 0.61	13 / 0.27	8.0 / 0.23	0.4 / 0.01	0.0 / 0.00	0.2	27	PO_4 0.00	69[f]	35	34	4	10		
[illegible] 2 [illegible]	75	[illegible]	[illegible]	[illegible]	102	7.3 / 7.4	[illegible] / 0.7[illegible][c]		8.6 / 0.37		0 / 0.00	30 / 0.49	12 / 0.40	8.8 / 0.25			0.4				33	3[illegible]	13	35		
[illegible]	35	[illegible]	[illegible]	[illegible]	147	7.[illegible] / 7.8	0.54[c]		11 / 0.48		0 / 0.00	41 / 0.67		15 / 0.42			0.3				36	42	[illegible]	4		
[illegible]	[illegible]	[illegible]	10.6	139	204	8.2 / 7.[illegible]	1.42[c]		16 / 0.70		0 / 0.00	82 / 1.34		17 / 0.48			0.5				32	74	7	5		
[illegible]	[illegible]	73	[illegible]	[illegible]	25[illegible]	7.3 / 7.7	18 / 0.[illegible]	2.2 / 0.75	17 / 0.74	3.3 / 0.08	0 / 0.00	96 / 1.57	14 / 0.29	20 / 0.56	0.8 / 0.01	0.1 / 0.01	0.4	23	PO_4 0.10	103[f] 108[f]	3	[illegible]	4	5		
[illegible]	4	65	[illegible]	[illegible]	20[illegible]	7.3 / 7.[illegible]	1.41[c]		18 / 0.78		0 / 0.00	72 / 1.18		24 / 0.68			0.3				3[illegible]	70	11	1		
[illegible]	13[illegible]	[illegible]	10.1	[illegible]	17[illegible]	7.3 / 7.[illegible]	1.[illegible][c]		14 / 0.61		0 / 0.00	51 / 0.84		14 / 0.39			0.3				3[illegible]	[illegible]	16	[illegible]		
[illegible]	[illegible]	49	11.[illegible]	[illegible]	151	7.3 / 7.[illegible]	0.65[c]		12 / 0.52		0 / 0.00	47 / 0.77		12 / 0.34			0.3				38	42	3	3		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER BELOW COSUMNES RIVER (STA. 23b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm[g]	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
1962	Tidal																									[illegible]
1/23 1200		[illegible]			91				5.1					3.6						80	24					
4/20 1135		5[illegible]			49				2.5					1.4						48	22					
5/14 1400		[illegible]			5[illegible]				3.0					2.8						[illegible]0	2[illegible]					
[illegible]/1[illegible] 1[illegible]		[illegible]7			[illegible]				2.1					3.6						[illegible]0	17					
[illegible]/1[illegible] 11[illegible]		7[illegible]			42				3.0					3.[illegible]						[illegible]8	[illegible]1					
[illegible] 1[illegible]		71			[illegible]1				2.3					1.[illegible]						[illegible]	2[illegible]					
11/1[illegible] 1[illegible]		[illegible]							4.0					[illegible].3							[illegible]					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 CPC

TABLE F-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

MOKELUMNE RIVER BELOW GEORGIANA SLOUGH (STA. 23c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962	Tidal																									
1/23 1045		43			173				12					8.5						114	30					
4/20 1010		58			103				6.4					5.0						88	26					
5/14 1515		62			140				9.2					6.4						102	29					
6/18 1205		70			183				9.7					7.8						126	26					
7/16 1250		75			175				14					13						140	34					
8/28 1135		71			175				13					9.9						124	32					
11/13 1320		60			152				10					9.9						124	29					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
MOKELUMNE RIVER NEAR LANCHA PLANA (STA. 23a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/10 1445	[illegible]	51	11.9	10[illegible]	58	7.1 / 7.8	— / 0.34[c]		3.1 / 0.13	2.0 / 0.05	0 / 0.00	11 / 0.18	9.4 / 0.20	3.9 / 0.11			0.0			46[e]	25	17	8	3	Median 13. Maximum 620. Minimum 0.0	USGS
2/14 1515	[illegible]	50	11.4	101	192	5.8 / 4.9	— / 1.25[c]		5.1 / 0.22		0 / 0.00	0 / 0.00	61 / 1.27	5.6 / 0.16			0.0			152[e]	15	63	63	50		
3/8 1340	[illegible]	49	11.9	103	68	6.9 / 7.3	— / 0.54[c]		2.9 / 0.13		0 / 0.00	15 / 0.25		4.2 / 0.12			0.0			54[e]	19	27	15	30		
4/5 1415	[illegible]	[illegible]	11.[illegible]	109	7[illegible]	6.4 / 6.4	— / 0.38[c]		4.0 / 0.17		0 / 0.00	12 / 0.20		4.5 / 0.13			0.1			59[e]	31	19	9	240		
5/10 1200	[illegible]	51	11.5	10[illegible]	82	6.0 / 6.8	1.0 / 0.30	2.3 / 0.19	3.5 / 0.15	2.6 / 0.07	0 / 0.00	8 / 0.13	21 / 0.44	4.5 / 0.13	0.3 / 0.00	0.0 / 0.00	0.0	10	PO_4 0.00	54[f]	21	25	18	8		
6/11 1[illegible]	[illegible]	57	11.[illegible]	111	59	6.5 / 6.6	— / 0.48[c]		3.3 / 0.14		0 / 0.00	13 / 0.21		4.6 / 0.13			0.0			47[e]	25	21	10	5		
7/9 0945	211	59	10.[illegible]	102	3[illegible]	7.1 / 7.1	— / 0.23[c]		2.5 / 0.11		0 / 0.00	15 / 0.25		2.6 / 0.07			0.0			26[e]	32	11	0	1		
8/1 1[illegible]	[illegible]	61	10.[illegible]	104	30	7.1 / 7.1	— / 0.17[c]		2.2 / 0.10		0 / 0.00	14 / 0.23		1.6 / 0.05			0.0			24[e]	35	9	0	1		
9/[illegible] 1015	[illegible]	61	10.[illegible]	104	29	7.0 / 6.9	3.8 / 0.19	0.4 / 0.03	1.9 / 0.08	0.3 / 0.01	0 / 0.00	13 / 0.21	0.0 / 0.00	2.2 / 0.06	0.6 / 0.01	0.1 / 0.01	0.0	9.5	PO_4 0.00	24[f] 23[g]	26	11	0	4		
10/[illegible] 0945	[illegible]	61	9.8	[illegible]	31	6.9 / 7.0	— / 0.20[c]		2.4 / 0.10		0 / 0.00	14 / 0.23		3.1 / 0.09			0.0			25[e]	33	10	0	15		
11/13 1020	[illegible]	58	10.0	98	31	7.0 / 6.9	— / 0.22[c]		2.0 / 0.09		0 / 0.00	15 / 0.25		2.2 / 0.06			0.0			25[e]	29	11	0	3		
12/[illegible] 0945	211	[illegible]	10.[illegible]	[illegible]	32	6.9 / 7.1	— / 0.22[c]		2.0 / 0.09		0 / 0.00	14 / 0.23		2.8 / 0.08			0.1			25[e]	29	11	0	4		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey (Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
MOKELUMNE RIVER AT WOODBRIDGE (STA. 23)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/10 1340	57	46	11.7	98	75	5.9/7.5	—/0.40[c]		3.0/0.13	4.0/0.10	0/0.00	11/0.18	16/0.33	4.2/0.12			0.0			55[e]	20	20	11	5	Median 1.2. Maximum [illegible]. Minimum [illegible]	USGS
2/24 1405	[illegible]	53	10.4	100	122	[illegible]/7.1	—/0.84[c]		5.4/0.23		0/0.00	16/0.26		4.8/0.14			0.1			90[e]	21	42	29	30		
3/8 [illegible]	[illegible]	42	11.7	102	86	6.9/7.2	—/0.[illegible][c]		3.5/0.15		0/0.00	19/0.31		5.0/0.14			0.0			63[e]	20	30	14	50		
4/5 1300	[illegible]	58	10.5	102	71	6.6/7.2	—/0.46[c]		4.2/0.18		0/0.00	15/0.25		6.2/0.17			0.1			52[e]	28	[illegible]	11	[illegible]		
5/10 1540	[illegible]	61	10.2	103	81	6.0/6.0	6.0/0.30	1.2/0.10	4.5/0.20	3.9/0.10	0/0.00	2/0.03	26/0.54	5.0/0.14	0.2/0.00	0.2/0.01	0.0	11	ABS 0.0; PO_4 0.00	59[f]	29	20	18	20		
[illegible]/12 1200	[illegible]	59	10.6	[illegible]	61	6.4/6.7	—/0.46[c]		2.9/0.13		0/0.00	12/0.20		5.0/0.14			0.0			45[e]	22	22	13	10		
7/5 1430	238	70	8.8	99	37	7.1/7.1	—/0.25[c]		2.5/0.11		0/0.00	16/0.26		3.5/0.10			0.0			27[e]	31	12	0	1		
8/1 1425	215	71	9.0	102	33	7.0/7.2	—/0.20[c]		2.4/0.10		0/0.00	14/0.23		2.2/0.06			0.0			24[e]	33	10	0	[illegible]		
9/6 0835	25	66	9.1	98	43	7.0/7.5	5.6/0.28	0.6/0.05	2.5/0.11	0.3/0.01	0/0.00	20/0.33	0.0/0.00	2.0/0.06	0.4/0.01	0.0/0.00	0.1	12	As 0.00; ABS 0.0; PO_4 0.00	34[f] [illegible]	24	17	1	5		
10/8 0805	114	63	9.4	97	38	7.1/7.2	—/0.28[c]		2.4/0.10		0/0.00	18/0.30		2.4/0.07			0.0			28[e]	28	14	0			
11/14 0940	241	57	9.9	95	35	7.1/7.0	—/0.26[c]		2.1/0.09		0/0.00	16/0.26		1.5/0.04			0.0			2[illegible][e]	28	[illegible]	[illegible]	[illegible]		
12/4 0920	232	53	10.5	96	35	7.1/7.1	—/0.24[c]		2.5/0.11		0/0.00	16/0.26		3.0/0.08			0.0			26[e]	31	12	0	20		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
OLD RIVER AT CLIFTON COURT FERRY (STA. 104)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/10 1255		45	9.1	70	1330	8.1/7.9	6.16[c]		154/6.70		0/0.00	187/3.06		236/6.66			0.5			757[e]	52	308	155	10	Median 210. Maximum >7000. Minimum 6.2	USGS
2/15 1320		53	6.4	59	506	7.3/7.1	2.28[c]		56/2.44		0/0.00	91/1.49		73/2.06			0.3			288[e]	52	114	39	70		
3/8 1415		54	8.5	79	553	7.4/7.4	2.44[c]		63/2.74		0/0.00	98/1.61		73/2.06			0.4			315[e]	53	122	42	25		
4/11 1410		68	8.2	90	526	7.3/7.6	2.52[c]		56/2.44		0/0.00	88/1.44		76/2.14			0.3			299[e]	49	126	54	15		
5/8 1450		69	9.5	105	377	7.6/7.8	22/1.10	10/0.85	36/1.57	2.5/0.06	0/0.00	82/1.34	31/0.65	56/1.58	0.3/0.00	0.2/0.01	0.0	13	PO_4 0.81	211[f]	44	98	31	25		
6/5 1245		69	9.5	105	412	8.5/7.4	2.00[c]		42/1.83		0/0.00	74/1.21		62/1.75			0.1			234[e]	48	100	39	30		
7/10 1135		76	6.4	76	225	7.3/7.5	1.28[c]		20/0.87		0/0.00	70/1.15		26/0.73			0.1			128[e]	40	64	7	10		
8/7 1220		74	7.4	86	291	7.3/7.6	1.46[c]		33/1.44		0/0.00	80/1.31		39/1.10			0.0			166[e]	50	73	7	20		
9/6 1330		75	7.1	84	336	7.3/7.6	16/0.80	10/0.82	39/1.70	1.9/0.05	0/0.00	86/1.41	22/0.46	50/1.41	1.6/0.03	0.2/0.01	0.0	15	PO_4 0.15	198[f]/193[g]	50	81	10	35		
10/4 1120		69	7.9	88	387	7.4/7.6	1.82[c]		47/2.04		0/0.00	95/1.56		58/1.64			0.1			220[e]	53	91	13	15		
11/13 1425		62	8.4	86	768	7.5/7.6	3.40[c]		89/3.87		0/0.00	139/2.28		129/3.64			0.2			437[e]	53	170	56	15		
12/11 1040		51	7.8	70	464	7.3/7.5	2.01[c]		49/2.13		0/0.00	80/1.31		72/2.03			0.2			264[e]	51	100	34	9		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 3-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

OLD RIVER AT HOLLAND TRACT (STA. 108a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm e	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									USBR
1/22 1045		4[illegible]			539				47					61						356	38					
2/14 1[illegible]5		5[illegible]			735				71					114						516	39					
3/12 1[illegible]15		5[illegible]			508				57					84						384	42					
4/17 1[illegible]45					255				22					28						180	38					
5/15 1250		6[illegible]			172				13					15						120	33					
6/19 1005		7[illegible]			219				16					21						148	32					
7/17 0935		7[illegible]			224				20					1[illegible]						160	39					
8/14 1040		75			317				32					49						176	44					
9/17 1035		70			437				49					81						296	49					
10/1[illegible] 1325		63			276				28					36						168	44					
11/1[illegible] 1050		58			331				31					45						228	41					
12/17 1420		54			450									67						276						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
OLD RIVER AT MANDEVILLE ISLAND (STA. 112)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962	Tidal																									
1/11 1150		47	10.0	85	333	7.1/7.8	2.08[c]		26/1.13		0/0.00	87/1.43		37/1.04			0.1			193[e]	35	104	3[illegible]	14	Median 95. Maximum >7000. Minimum 2.3	USGS
2/15 1410		53	9.8	90	552	7.1/7.9	3.12[c]		50/2.18		0/0.00	91/1.49		103/2.91			0.9			320[e]	41	156	81	50		
3/8 1410		54	9.6	89	469	7.3/7.9	2.36[c]		47/2.04		0/0.00	80/1.31		59/1.66			0.3			272[e]	46	118	52	35		
4/4 1330		65	8.8	93	375	7.3/7.6	1.92[c]		38/1.65		0/0.00	78/1.28		53/1.50			0.2			218[e]	46	96	32	25		
5/7 1305		73	9.1	105	143	7.3/7.7	11/0.55	4.5/0.37	9.9/0.43	1.4/0.04	0/0.00	50/0.82	11/0.23	12/0.34	0.7/0.01	0.2/0.01	0.1	17	As 0.01; ABS 0.0; PO_4 0.15	93[f]	31	46	5	110		
6/5 1230		70	8.4	94	192	7.2/7.4	1.18[c]		16/0.70		0/0.00	66/1.08		16/0.45			0.0			111[e]	37	59	5	25		
7/9 1240		75	7.6	90	187	7.4/7.7	1.16[c]		16/0.70		0/0.00	69/1.13		16/0.45			0.1			108[e]	38	58	1	90		
8/2 0945		72	8.0	92	291	7.4/7.5	1.40[c]		34/1.48		0/0.00	80/1.31		41/1.16			0.1			169[e]	51	70	4	15		
9/6 1600		73	7.7	89	414	7.5/7.8	16/0.80	12/0.95	54/2.35	2.6/0.07	0/0.00	86/1.41	41/0.85	72/2.03	0.8/0.01	0.1/0.01	0.1	14	As 0.00; ABS 0.0; PO_4 0.00	255[f]/232[g]	56	88	17	35		
10/2 1410		71	8.2	93	302	7.5/7.6	1.64[c]		33/1.44		0/0.00	96/1.57		37/1.04			0.0			175[e]	47	82	3	30		
11/13 1415		61	9.3	94	317	7.5/7.4	1.77[c]		29/1.26		0/0.00	92/1.51		38/1.07			0.1			184[e]	42	88	13	15		
12/5 1140		53	9.5	87	350	7.3/7.7	1.90[c]		34/1.48		0/0.00	94/1.54		45/1.27			0.1			203[e]	44	95	18	8		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

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TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
OLD RIVER AT ORWOOD BRIDGE (STA. 108)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/11 1215		48	8.8	7[illegible]	982	7.1/7.9	—/5.42[c]		97/4.22		0/0.00	118/1.93		141/3.98			0.4			552[e]	44	271	174	35	Median 130. Maximum >7000. Minimum 5.	USGS
2/15 1115		53	7.9	72	1390	7.3/7.6	—/6.69[c]		164/7.13		0/0.00	160/2.62		234/6.60			0.8			781[e]	52	334	203	40		
3/3 1205		54	8.9	83	603	7.2/8.0	—/2.62[c]		69/3.00		0/0.00	99/1.62		66/1.86			0.4			339[e]	53	131	50	30		
4/11 1120		66	8.0	86	452	7.3/7.9	—/2.22[c]		47/2.04		0/0.00	86/1.41		64/1.81			0.2			254[e]	48	111	40	35		
5/8 1215		70	7.3	82	202	7.1/7.5	13/0.65	6.7/0.55	16/0.70	1.8/0.05	0/0.00	61/1.00	17/0.35	20/0.56	0.7/0.01	0.2/0.01	0.0	15	PO_4 0.69	121[f]	36	60	10	35		
6/6 1200		72	7.2	82	235	7.2/7.9	—/1.36[c]		21/0.91		0/0.00	68/1.11		27/0.76			0.0			132[e]	40	68	12	50		
7/10 1330		78	6.7	81	205	7.3/7.4	—/1.18[c]		18/0.78		0/0.00	70/1.15		19/0.54			0.0			115[e]	40	59	2	50		
8/6	Not Sampled																									
9/6 1200		75	6.9	81	373	7.3/7.5	16/0.80	10/0.86	44/1.91	2.0/0.05	0/0.00	86/1.41	23/0.48	60/1.69	1.1/0.02	0.2/0.01	0.0	14	PO_4 0.15	212[f]/221[g]	53	83	12	25		
10/4 0930		69	7.5	83	367	7.3/7.5	—/1.81[c]		42/1.83		0/0.00	96/1.57		53/1.50			0.0			206[e]	50	91	12	25		
11/13 1205		60	8.2	82	625	7.4/7.7	—/2.88[c]		68/2.96		0/0.00	120/1.97		98/2.76			0.1			351[e]	51	144	46	15		
12/10 1150		51	7.9	70	556	7.3/7.6	—/2.42[c]		58/2.52		0/0.00	96/1.57		86/2.43			0.2			312[e]	51	121	42	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE 1-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
OLD RIVER NEAR TRACY (STA. 103)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/10 1350		46	10.0	84	1360	7.6/8.0	6.52[c]		157/6.83		0/0.00	207/3.39		246/6.94			0.5			756[e]	51	326	156	11	Median 210. Maximum 7000. Minimum 6.2	USGS
2/13 1350		52	7.8	71	1290	8.1/7.7	5.68[c]		160/6.96		0/0.00	180/2.95		230/6.49			0.7			717[e]	55	284	136	15		
3/7 1300		54	8.7	81	538	7.6/7.7	2.38[c]		62/2.70		0/0.00	96/1.57		70/1.97			0.4			299[e]	53	119	40	25		
4/9 1410		67	11.4	124	760	7.6/7.6	3.66[c]		85/3.70		0/0.00	125/2.05		122/3.44			0.4			423[e]	50	183	81	25		
5/7 1200		76	11.7	139	646	7.7/7.9	36/1.80	17/1.40	70/3.04	4.3/0.11	0/0.00	124/2.03	55/1.15	106/2.99	0.0/0.00	0.1/0.01	0.0	13	PO_4 0.00	362[f]	48	160	58	25		
6/5 1150		68	11.1	122	574	7.7/7.4	2.76[c]		64/2.78		0/0.00	110/1.80		93/2.62			0.1			319[e]	50	138	48	40		
7/10 0950		73	8.9	80	940	7.9/7.8	4.48[c]		110/4.78		0/0.00	160/2.62		180/5.08			0.2			523[e]	52	224	93	15		
8/8 1030		75	8.9	105	1120	7.6/7.8	5.27[c]		139/6.05		0/0.00	190/3.11		211/5.95			0.2			623[e]	53	264	108	20		
9/6 1300		72	8.9	102	1080	7.9/8.1	60/2.99	24/2.01	124/5.39	5.0/0.13	0/0.00	200/3.28	72/1.50	201/5.67	2.1/0.03	0.2/0.01	0.3	23	PO_4 0.25	611[f]/615[g]	51	250	86	35		
10/4 1300		68	10.9	119	960	8.4/8.4	4.50[c]		115/5.00		3/0.10	178/2.92		164/4.63			0.2			534[e]	53	225	68	7		
11/14 1100		59	5.6	55	869	7.4/7.5	3.85[c]		100/4.35		0/0.00	164/2.69		141/3.98			0.2			483[e]	53	192	58	10		
12/11 1140		51	5.1	45	502	7.3/7.4	2.31[c]		55/2.39		0/0.00	97/1.59		81/2.29			0.1			279[e]	51	116	36	20		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

SPO

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PAYNES CREEK NEAR RED BLUFF (STA. 89[illegible])

Date and time sampled PST 1[illegible]	Discharge in cfs Est. by Sampler	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1 1 2[illegible]	1[illegible]	6[illegible]	11.2	9[illegible]	213	7.5/8.1	—/1.47[c]		17/0.74		0/0.00	108/1.77		15/0.42			0.3				33	74	.	2		USGS
1 14 1[illegible]	[illegible]	4[illegible]	10.[illegible]	92	7[illegible]	7.2/7.5	—/0.64[c]		3.8/0.17		0/0.00	32/0.64		2.0/0.06			0.0				21	5[illegible]	[illegible]	5		
3 13 1[illegible]	[illegible]	5[illegible]	10.1	[illegible]	124	7.5/7.7	—/0.9[illegible][c]		7.7/0.33		0/0.00	66/1.08		4.8/0.14			0.1				26	48	.	3		
4/11 1010	1[illegible]	6[illegible]	10.5	105	168	7.[illegible]/8.0	—/1.24[c]		14/0.61		0/0.00	90/1.48		7.2/0.20			0.2				33	62	0	3		
5 5 0[illegible]15	1[illegible]	6[illegible]	9.3	9[illegible]	184	7.4/7.6	12/0.60	7.8/0.64	14/0.61	1.5/0.04	0/0.00	94/1.54	2.0/0.04	9.5/0.27	0.3/0.00	0.0/0.00	0.2	4[illegible]	PO_4 0.20	13[illegible][f]	32	62	0	4		
[illegible] 11[illegible]	2[illegible]	[illegible]	9.4	103	20[illegible]	7.3/8.1	—/1.52[c]		16/0.70		0/0.00	107/1.75		13/0.37			0.4				32	70	0	3		
7 2 1330	15	73	12.2	140	205	8.3/8.2	—/1.44[c]		16/0.70		0/0.00	108/1.77		13/0.37			0.2				33	7[illegible]	[illegible]	2		
8/1 1415	5	76	10.5	124	216	8.0/8.1	—/1.44[c]		18/0.78		0/0.00	116/1.90		14/0.37			0.5				35	72	[illegible]	[illegible]		
9/11 1[illegible]	20	69	10.8	119	234	7.5/8.0	14/0.70	10/0.84	19/0.83	1.3/0.03	0/0.00	119/1.95	0.0/0.00	16/0.45	1.0/0.02	0.0/0.00	0.4	47	PO_4 0.15	16[illegible][f] 16[illegible][f]	35	7[illegible]		3		
10 1 1[illegible]	20	65	9.8	103	235	7.3/8.3	—/1.57[c]		20/0.87		3/0.10	116/1.90		18/0.51			0.3		Tot. Alk. 122		35	7[illegible]	0	2		
11/21 1[illegible]	20	60	10.1	101	231	7.4/7.7	—/1.65[c]		19/0.83		0/0.00	119/1.95		14/0.39			0.3				33	8[illegible]		[illegible]		
12/19 1125	5[illegible]	49	11.3	9[illegible]	113	7.3/7.[illegible]	—/0.85[c]		6.1/0.27		0/0.00	64/1.05		2.9/0.08			0.0				24	4[illegible]	0	1[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR BIEBER (STA. 17e)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/1 [illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.7 / 7.8	[illegible] / [illegible]		[illegible] / 1.13		[illegible] / [illegible]	[illegible] / 2.13		[illegible] / 0.10			0.1				[illegible]	[illegible]	[illegible]			[illegible]
2/13 1035	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.1 / 7.1	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]			
[illegible] 0930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5 / 7.9	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
4/10 1200	[illegible]	[illegible]	[illegible]	[illegible]	15[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.5[illegible]		[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / [illegible]			.1				[illegible]	[illegible]	[illegible]	[illegible]		
5/2 1120	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
6/14 0800	[illegible]	[illegible]	[illegible]	[illegible]	27	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]		Tot. Alk. [illegible]		[illegible]	[illegible]	[illegible]	[illegible]		
7/10 0915	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 1.7[illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]		Tot. Alk. 171		[illegible]	[illegible]	[illegible]			
8/15 1110	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.4 / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]		Tot. Alk. 160		[illegible]	[illegible]	[illegible]	[illegible]		
9/17 1235																										
10/1[illegible] 1500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
11/19 1425	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
12/17	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		1[illegible] / [illegible]		[illegible] / [illegible]	8[illegible] / 1.3[illegible]		[illegible] / [illegible]			0.1				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR CANBY (STA. 17a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a / b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		13 / 0.37			0.1 / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Max. 2,400.	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		5.1 / 0.14			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Max. 0.62	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		12 / 0.34			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	Median 26.	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		14 / 0.39			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.90	[illegible] / 0.59	21 / 0.91	[illegible] / 0.13	[illegible] / [illegible]	[illegible] / 2.07	[illegible] / 0.27	[illegible] / 0.15	[illegible] / 0.01	[illegible] / 0.01	[illegible]	[illegible]	PO_4 0.35 As 0.00 ABS 0.0	170[j]	55	77		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 8.2	[illegible] / [illegible]		[illegible] / 1.45		0 / 0.00	[illegible] / [illegible]		8.[illegible] / 0.23			[illegible]				44	[illegible]	0	15		
[illegible]	[illegible]	[illegible]	7.7	[illegible]	[illegible]	[illegible] / 8.2	[illegible] / 2.12[c]		[illegible] / 1.47		0 / 0.00	[illegible] / 3.05		6.0 / 0.17			0.2				41	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	72	7.3	[illegible]	323	7.6 / 7.4	[illegible] / 2.2[illegible][c]		36 / 1.34		0 / 0.00	187 / 3.06		8.6 / 0.24			0.0				[illegible]	11[illegible]	0	5		
[illegible]	[illegible]	72	[illegible]	[illegible]	[illegible]	[illegible] / 8.1	[illegible] / 1.35	12 / 0.49	[illegible] / 1.[illegible]	[illegible] / 0.15	0 / 0.00	202 / 3.31	[illegible] / 0.4	[illegible] / 0.27	0.[illegible] / .01	0.2 / 0.01	0.1	34	PO_4 0.55 As 0.01 ABS 0.0	247[k] 248[k]	[illegible]	11[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	72	130	7.2 / 7.4	[illegible] / 0.78		12 / 0.57		0 / 0.00	63 / 1.03		4.0 / 0.11			0.1				42	[illegible]	0	100		
[illegible]	14	[illegible]	11.[illegible]	[illegible]	25[illegible]	7.3 / 8.1	[illegible] / 1.53[c]		23 / 1.00		0 / 0.00	136 / 2.23		7.[illegible] / 0.21			0.0				40	7[illegible]	[illegible]	15		
[illegible]	348	[illegible]	10.[illegible]	[illegible]	291	7.5 / 7.[illegible]	[illegible] / 1.24[c]		18 / 0.78		0 / 0.00	106 / 1.74		[illegible] / 0.1[illegible]			0.1				3[illegible]	[illegible]	0	5[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

GPO

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER NEAR MONTGOMERY CREEK (STA. 17)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
[illegible] 1955	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.10		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	M[illegible] [illegible]	[illegible]
[illegible]	NOT SAMPLED																								M[illegible] 0.62	
[illegible]	NOT SAMPLED																								Median [illegible]	
[illegible]	[illegible]	[illegible]	10.[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.04		[illegible] / [illegible]		[illegible] / [illegible]	72 / 1.18		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	11 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible], [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 11 1955	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		11 / 0.52		[illegible] / [illegible]	82 / 1.51		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
7 [illegible] 0940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		11 / 0.48		[illegible] / [illegible]	84 / 1.[illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.14		11 / [illegible]		[illegible] / [illegible]	88 / 1.44		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	Fe_2 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
1 [illegible] 0945	17,[illegible]	[illegible]	11.5	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 0.84		[illegible] / [illegible]		[illegible] / 0.[illegible]	[illegible] / 1.[illegible]		[illegible] / 0.[illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
11 1[illegible] 1[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.1[illegible]		1 / 1.44		[illegible] / [illegible]	9[illegible] / 1.[illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 27 [illegible]	[illegible]	[illegible]	11.1	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.[illegible]		[illegible] / [illegible]	68 / 1.11		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

PIT RIVER, SOUTH FORK NEAR LIKELY (STA. 18a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	43	[illegible]	[illegible]	Maximum [illegible]	USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	54	[illegible]	15	Minimum 1.5	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	10	Median 62.	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	15		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.3	[illegible]	2.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	28	PO_4 0.15	74[f]	21	35		5		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			0.0				[illegible]	44	[illegible]	10		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			[illegible]				25	[illegible]	0	5		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			0.0				[illegible]	52	0	10		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.0	11	4.0		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	31	PO_4 0.40	116[f] 138[g]	[illegible]	53	0	20		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			0.0				21	50	0	8		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			[illegible]				24	[illegible]	0	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		0.00	[illegible]		[illegible]			0.0				22	39	0	4		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
PUTAH CREEK NEAR WINTERS (STA. 81)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[a]/[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1325	94	53	11.0	101	346	7.7/8.2	—/3.36[c]		11/0.48		0/0.00	194/3.18		8.5/0.24			0.2			208[e]	12	168	9	5	Median 21. Maximum 2400. Minimum 0.62	USGS
2/7 1445	67	50	12.6	111	335	7.7/8.4	—/3.26		9.9/0.43		4/0.13	180/2.95		9.6/0.28			0.2			202[e]	12	163	8	3		
3/8 1155	33	54	11.6	108	496	8.3/8.2	—/3.72[c]		36/1.57		0/0.00	190/3.11		32/0.90			0.5			299[e]	30	186	30	10		
4/9 1415	165	56	12.3	117	344	8.5/8.1	—/3.28[c]		12/0.52		0/0.00	193/3.16		7.0/0.20			0.1			207[e]	14	164	6	8		
5/3 1415	313	56	12.1	115	308	8.6/8.4	20/1.00	26/2.16	10/0.44	1.9/0.05	8/0.27	173/2.84	16/0.33	5.5/0.16	0.0/0.00	0.1/0.01	0.1	13	ABS 0.0; PO_4 0.00	187[f]	12	158	2	2		
6/6 1350	421	57	11.9	115	316	8.5/8.4	—/3.13[c]		8.7/0.38		7/0.23	171/2.80		6.5/0.18			0.0			190[e]	11	157	5	1		
7/5 0840	427	53	11.0	101	318	7.4/8.3	—/3.10[c]		9.6/0.42		4/0.13	176/2.88		5.5/0.16			0.2			191[e]	12	155	4	2		
8/2 1055	427	53	11.3	104	317	8.3/8.2	—/3.12[c]		9.7/0.42		0/0.00	188/3.08		7.8/0.22			0.0			191[e]	12	156	2	1		
9/4 1815	319	57	11.1	107	314	8.1/8.2	20/1.00	25/2.08	9.6/0.42	1.5/0.04	0/0.00	188/3.08	17/0.35	6.0/0.17	0.7/0.01	0.1/0.01	0.2	11	As 0.00; ABS 0.0; PO_4 0.00	184[f]/170[g]	12	154	0	5		
10/6 0925	108	52	10.6	96	320	7.5/8.3	—/3.14[c]		8.7/0.38		2/0.07	188/3.08		6.6/0.19			0.0			193[e]	11	157	0	7		
11/8 0845	11	52	9.3	84	337	7.8/8.3	—/3.24[c]		10/0.44		8/0.27	182/2.98		7.5/0.21			0.2			203[e]	12	162	0	2		
12/5 0910	14	50	10.4	93	349	7.8/8.2	—/3.24[c]		12/0.52		0/0.00	198/3.25		13/0.37			0.2			210[e]	14	162	0	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

RED BANK CREEK NEAR RED BLUFF (STA. 88d)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Tot. Alk. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Tot. Alk. 258	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22	PO_4 0.05	[illegible][j]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]																									
[illegible]	[illegible]																									
[illegible]	[illegible]																									
[illegible]	[illegible]																									
[illegible]	[illegible]																									
[illegible]	[illegible]																									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Tot. Alk. 258	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Tot. Alk. 274	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+5}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
ROCK SLOUGH NEAR KNIGHTSEN (STA. 109)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							equivalents per million																			
1962	Tidal																									
1/11 1300		48	8.7	75	844	7.1/7.5	4.90[c]		78/3.39		0/0.00	110/1.80		108/3.05			0.3			485[e]	41	245	155	35	Median 62. Maximum >7000. Minimum 13.	USGS
2/15 1020		52	9.0	82	1090	7.7/7.5	6.04[c]		110/4.78		0/0.00	127/2.08		182/5.13			0.5			627[e]	44	302	198	40		
3/8 1125		52	8.6	78	636	7.2/7.1	2.96[c]		70/3.04		0/0.00	88/1.44		84/2.37			0.5			366[e]	51	148	76	45		
4/11 1040		67	7.8	85	482	7.3/8.0	2.32[c]		51/2.22		0/0.00	86/1.41		69/1.95			0.3			277[e]	49	116	45	25		
5/8 1035		69	6.7	74	184	6.9/7.5	15/0.75	4.5/0.37	14/0.61	1.5/0.04	0/0.00	55/0.90	17/0.35	18/0.51	1.0/0.02	0.2/0.01	0.0	16	PO_4 0.15	114[f]	34	56	11	60		
6/6 1015		71	6.9	78	224	7.6/7.7	1.32[c]		18/0.78		0/0.00	73/1.20		21/0.59			0.0			129[e]	37	66	6	40		
7/10 1410		81	6.9	86	206	7.4/7.5	1.30[c]		17/0.74		0/0.00	74/1.21		18/0.51			0.1			118[e]	36	65	4	30		
8/7 1020		74	7.4	86	337	7.2/7.5	1.51[c]		41/1.78		0/0.00	78/1.28		51/1.44			0.0			194[e]	54	75	11	30		
9/6 0950		72	6.3	72	409	7.1/7.4	17/0.85	11/0.91	50/2.18	2.4/0.06	0/0.00	89/1.46	22/0.46	69/1.95	0.9/0.01	0.2/0.01	0.1	14	PO_4 0.15	231[f] 229[g]	54	88	15	25		
10/4 0825		66	6.7	72	375	7.3/7.8	1.76[c]		44/1.91		0/0.00	98/1.61		55/1.55			0.0			216[e]	52	88	8	15		
11/13 1100		61	7.3	74	525	7.3/8.0	2.54[c]		57/2.48		0/0.00	115/1.88		76/2.14			0.2			302[e]	49	127	33	10		
12/10 1050		51	7.5	67	743	7.3/7.7	3.34[c]		80/3.48		0/0.00	140/2.29		116/3.27			0.4			427[e]	51	167	52	9		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14
ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BEND (STA. 12c)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]				Maximum 2,100.	U.S.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]		M[illegible] 1.3	
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]				M[illegible] b2.	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	123	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 0.00 As 0.00 ABS 0.00	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	.4		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				.5	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	111	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PO_4 0.00 As 0.01 ABC [illegible]	[illegible]	[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	57	11.1	1.7	115	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	40		4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	122	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				.2	[illegible]		1		
[illegible]	[illegible]	53	1.4	[illegible]	131	[illegible]	[illegible]		[illegible]		[illegible]	70 1.15		[illegible] 0.10			[illegible]				20	[illegible]	[illegible]	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BEND (STA. 12c)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	1.7	[illegible]	[illegible]	[illegible]	4.4	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			USGS
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 / 0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	12 / 0.60	[illegible]	[illegible]	[illegible]	0 / 0.00	1.11	[illegible] / 0.19	[illegible] / 0.14	[illegible] / 0.01	[illegible] / 0.01	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	41	10	2.8	0.4	0.2	[illegible]	1[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 0.01	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 0.01	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.2	[illegible]	24	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible] Al [illegible] Cl [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BEND (STA. 12c continued)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]					121	7.5	12 / 0.60	3.4 / 0.28	6.6 / 0.29	1.0 / 0.03	0 / 0.00	62 / 1.02	5.2 / 0.11	3.2 / 0.09	0.8 / 0.01	0.0 / 0.00	0.0	23	Fe 0.00 Zn 0.10 Cu 0.02	86[f] 93[e]	24	44	0			USGS
[illegible]					117	7.7	11 / 0.55	4.0 / 0.33	6.8 / 0.30	0.9 / 0.02	0 / 0.00	61 / 1.00	5.8 / 0.12	2.8 / 0.08	0.6 / 0.01	0.0 / 0.00	0.0	23	Fe [illegible] Zn [illegible]	85[f] [illegible][e]	25	44	[illegible]			
[illegible]					122	7.3	12 / 0.60	3.9 / 0.32	7.7 / 0.33	0.8 / 0.02	0 / 0.00	66 / 1.08	4.0 / 0.08	3.0 / 0.08	1.1 / 0.02	0.0 / 0.00	0.0	28	Fe 0.1 Zn 0.08 Cu 0.02	84[f] 101[e]	26	46	0			
[illegible]					123	7.6	11 / 0.55	4.6 / 0.38	7.7 / 0.33	0.9 / 0.02	0 / 0.00	68 / 1.11	4.4 / 0.09	3.2 / 0.09	1.3 / 0.02	0.1 / 0.01	0.0	29	Fe 0.01 Zn 0.03 Cu 0.00	85[f] 92[e]	28	47	[illegible]			
[illegible]					116	7.5	11 / 0.55	4.5 / 0.37	7.4 / 0.32	1.0 / 0.03	0 / 0.00	65 / 1.07	5.0 / 0.10	4.0 / 0.11	1.0 / 0.02	0.0 / 0.00	0.0	27	Fe 0.03 Zn 0.02 Cu 0.01	85[f] 90[e]	25	47	0			
[illegible]					117	7.6	11 / 0.55	4.7 / 0.39	7.1 / 0.31	1.0 / 0.03	0 / 0.00	65 / 1.07	4.0 / 0.08	4.2 / 0.12	1.3 / 0.02	0.0 / 0.00	0.0	24	Fe 0.01 Zn 0.03 Cu 0.01	84[f] 90[e]	24	47				
[illegible]					117	7.6	11 / 0.55	4.0 / 0.33	7.1 / 0.31	1.0 / 0.03	0 / 0.00	63 / 1.03	3.8 / 0.08	2.8 / 0.08	1.2 / 0.03	0.0 / 0.00	0.0	31	Fe 0.04 Zn 0.03 Cu 0.01	84[f] 92[e]	23	44	0			
[illegible]					116	7.6	10 / 0.50	4.0 / 0.40	6.4 / 0.28	1.1 / 0.03	0 / 0.00	64 / 1.05	5.0 / 0.10	2.7 / 0.08	1.0 / 0.03	0.0 / 0.00	0.1	31	Fe 0.02 Zn 0.03 Cu 0.01	85[f] 92[e]	23	45				
[illegible]					114	7.6	10 / 0.50	4.3 / 0.35	6.2 / 0.27	1.0 / 0.03	0 / 0.00	62 / 1.02	3.6 / 0.07	2.6 / 0.07	1.0 / 0.03	0.0 / 0.00	0.0	31	Fe 0.02 Zn 0.00 Cu 0.01	82[f] 89[e]	23	45				
9/1-10					115	7.5	10 / 0.50	4.6 / 0.38	6.7 / 0.29	1.1 / 0.03	0 / 0.00	64 / 1.05	4.6 / 0.10	2.2 / 0.06	1.3 / 0.02	0.3 / 0.02	0.1	24	Fe 0.1 Zn 0.06 Cu 0.02	87[f] 91[e]	24	44	0			
[illegible]					116	7.8	12 / 0.60	3.4 / 0.28	7.0 / 0.30	1.2 / 0.03	0 / 0.00	64 / 1.05	5.0 / 0.10	2.6 / 0.06	0.3 / 0.00	0.2 / 0.01	0.0	25	Fe 0.01 Zn 0.10 Cu 0.02	86[f] 82[e]	25	44	0			
[illegible]/21-30					114	7.6	12 / 0.60	3.3 / 0.27	6.3 / 0.27	1.2 / 0.03	0 / 0.00	64 / 1.05	5.0 / 0.10	2.4 / 0.07	1.0 / 0.02	0.2 / 0.01	0.1	23	Fe 0.01 Zn 0.03 Cu 0.02	87[f] 79[e]	23	44	0			
[illegible]					116	7.4	10 / 0.50	4.7 / 0.39	6.3 / 0.27	1.0 / 0.03	0 / 0.00	61 / 1.00	3.6 / 0.07	2.7 / 0.08	1.0 / 0.02	0.1 / 0.01	0.0	27	Fe 0.03 Zn 0.10 Cu 0.00	87[f] 84[e]	25	44	[illegible]			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BEND (STA. 12c continued)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
10/11-14					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: .16 C: .0 Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]
10/15-31					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: [illegible] C: [illegible] Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
11/1-10					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: .06 C: .01 Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
11/11-20					123	7.3	11	5.0	7.3	2.5	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: .08 C: 0.[illegible] Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
11/21-30					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: [illegible] C: [illegible] Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: [illegible] C: .2 Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: .4 C: 0.[illegible] Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	F: [illegible] C: [illegible] Zn: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BOYERS BEND (STA. 14c)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/1-10					[illegible]	7.[illegible]	15 / .75	7.7 / [illegible]	10 / 0.44	1.4 / 0.04	0 / [illegible]	91 / 1.49	6.4 / 0.13	6.4 / 0.18	[illegible] / 0.01	0.1 / 0.01	[illegible]	30	Fe [illegible]	1[illegible]f / 12[illegible]g	[illegible]	[illegible]				UNGC
[illegible]					[illegible]	7.7	14 / [illegible]	[illegible] / [illegible]	11 / 0.48	1.5 / 0.04	0 / 0.00	97 / 1.59	[illegible] / [illegible]	7.7 / 0.22	1.2 / .02	0.1 / 0.01	0.0	31	Fe 0.[illegible]2	13[illegible]f / 131g	[illegible]	73				
1/21-31					[illegible]	7.[illegible]	13 / 0.65	6.3 / 0.52	8.8 / 0.38	1.2 / 0.03	0 / 0.00	73 / 1.20	8.2 / 0.17	6.0 / 0.17	0.5 / 0.01	0.1 / 0.01	0.0	25	Fe 0.12 Mn 0.15	10[illegible]f / 108g	[illegible]	[illegible]				
2/1-9					[illegible]	7.8	15 / 0.75	7.5 / [illegible]	10 / 0.44	1.4 / [illegible]	0 / 0.00	85 / 1.3[illegible]	9.0 / 0.19	7.9 / 0.22	0.4 / 0.01	0.1 / 0.01	0.[illegible]	23	Fe [illegible]	122f / 123g	[illegible]	[illegible]				
[illegible]					[illegible]	7.[illegible]	[illegible] / 0.4[illegible]	[illegible] / 0.35	5.1 / 0.22	1.3 / 0.03	0 / 0.00	47 / 0.77	8.0 / 0.17	3.8 / 0.11	0.5 / 0.01	0.2 / 0.01	0.1	22	Fe 0.06	7[illegible]f / 95g	[illegible]	48	3			
[illegible]					1[illegible]	7.[illegible]	13 / [illegible]	[illegible] / 0.4[illegible]	7.5 / 0.33	1.4 / [illegible]	0 / 0.00	67 / 1.10	10 / 0.21	5.5 / 0.16	0.5 / 0.01	0.2 / 0.01	[illegible]	24	Fe 0.13	101f / 11[illegible]g	22	57	2			
3/1-10					[illegible]	7.4	12 / 0.60	5.4 / 0.44	7.5 / 0.33	1.2 / 0.03	0 / 0.00	63 / 1.03	10 / 0.21	4.5 / 0.13	0.5 / 0.01	0.3 / 0.02	0.2	21	Fe 0.18	94f / 94g	24	52	0			
[illegible]					172	7.7	15 / 0.75	7.2 / 0.5[illegible]	9.1 / 0.40	1.3 / 0.3	0 / 0.00	81 / 1.33	11 / 0.23	5.5 / 0.16	0.7 / 0.01	0.3 / [illegible]	0.1	26	Fe 0.10	116f / 109g	23	67	1			
3/21-31					181	7.8	16 / 0.80	7.8 / 0.64	9.6 / 0.42	1.3 / 0.03	0 / 0.00	85 / 1.39	13 / 0.27	5.8 / 0.16	0.7 / 0.01	0.1 / 0.01	0.1	24	Fe 0.09	12[illegible]f / 117g	22	72	2			
4/1-10					159	7.6	14 / 0.70	7.1 / 0.58	7.8 / 0.34	1.1 / 0.03	0 / 0.00	78 / 1.28	10 / 0.21	5.0 / 0.14	0.0 / 0.00	0.1 / 0.01	0.0	25	Fe 0.02	108f / 111g	21	64				
[illegible]					159	8.[illegible]	14 / 0.70	6.6 / 0.54	7.8 / 0.34	1.2 / 0.03	0 / 0.00	76 / 1.25	9.0 / 0.19	5.2 / 0.15	0.2 / 0.00	0.1 / 0.01	0.0	28	Fe 0.02	106f / 110g	21	62	0			
4/21-30					149	7.6	14 / 0.70	5.6 / 0.46	8.1 / 0.35	1.2 / 0.03	0 / 0.00	74 / 1.21	9.0 / 0.19	4.8 / 0.14	0.2 / 0.00	0.1 / 0.01	0.0	27	Fe 0.02	106f / 105g	23	58	[illegible]			

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BOYERS BEND (STA. [illegible])

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible] 1-10					[illegible]	7.[illegible]	13 / [illegible]	[illegible] / [illegible]	[illegible] / .37	1.[illegible] / [illegible]	0 / 0.00	71 / [illegible]	[illegible] / .17	[illegible] / 0.12	1.[illegible] / [illegible]	.1 / 0.02	.[illegible]	.[illegible]	F .1	1[illegible] / [illegible]	[illegible]	[illegible]				[illegible]
[illegible] 11-20					[illegible]	7.7	14 / [illegible]	[illegible] / [illegible]	[illegible] / .35	1.[illegible] / 0.03	0 / 0.00	7[illegible] / [illegible]	[illegible] / 0.17	[illegible] / 0.14	[illegible] / [illegible]	.4 / [illegible]	.[illegible]	.4	F .[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 21-31					[illegible]	7.[illegible]	14 / [illegible]	[illegible] / 0.[illegible]1	[illegible] / .[illegible]	1.[illegible] / 0.03	0 / 0.00	[illegible] / [illegible]	[illegible] / 0.17	[illegible] / 0.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	.[illegible]	F[illegible] .1	[illegible] / [illegible]		[illegible]				
[illegible] 1-10					147	[illegible]	14 / [illegible]	[illegible] / .11	[illegible] / .31	[illegible] / [illegible]	0 / 0.00	[illegible] / 1.[illegible]1	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	.[illegible]	F[illegible] .0	1[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 11-20					[illegible]	7.[illegible]	14 / [illegible]	[illegible] / .3[illegible]	7.[illegible] / .35	1.[illegible] / [illegible]	0 / 0.00	[illegible] / 1.[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	.[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 21-31					[illegible]	7.3	14 / [illegible]	[illegible] / [illegible]	7.[illegible] / .3[illegible]	[illegible] / [illegible]	0 / 0.00	7[illegible] / 1.1	[illegible] / [illegible]	[illegible] / .11	[illegible] / .1	[illegible] / [illegible]	.[illegible]	.[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 1-10					[illegible]	7.[illegible]	[illegible] / [illegible]	[illegible] / .35	[illegible] / .3[illegible]	[illegible] / [illegible]	0 / 0.00	[illegible] / 1.1	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	.[illegible]	F[illegible]	1[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 11-20					[illegible]	7.[illegible]	11 / [illegible]	[illegible] / .4[illegible]	7.7 / .35	[illegible] / [illegible]	0 / 0.00	7[illegible] / 1.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]					
[illegible] 21-31					12[illegible]	7.[illegible]	1[illegible] / [illegible]	[illegible] / .3[illegible]	7.[illegible] / .34	[illegible] / [illegible]	0 / 0.00	7[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 1-10					131	7.5	1[illegible] / [illegible]	3.[illegible] / 0.31	7.7 / 0.33	1.[illegible] / [illegible]	0 / 0.00	7[illegible] / 1.15	[illegible] / .10	[illegible] / 0.1	1.[illegible] / [illegible]	[illegible] / [illegible]	.1	[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 11-20					130	7.[illegible]	1[illegible] / 0.60	5.0 / 0.41	7.7 / .33	1.1 / 0.03	0 / [illegible]	72 / 1.18	5.8 / 0.11	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				
[illegible] 21-31					1[illegible]	7.7	12 / [illegible]	5.1 / [illegible]	7.[illegible] / .31	[illegible] / [illegible]	— / [illegible]	71 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	.[illegible]	[illegible]	F[illegible]	[illegible] / [illegible]	[illegible]	[illegible]				

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BOYERS BEND (STA. [illegible] [illegible])

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			USGS
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
10/13-17					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	75[f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe 0.01	[illegible][f] [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	[illegible][f]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Fe [illegible]	107[f] [illegible]	[illegible]	[illegible]	[illegible]			

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BUTTE CITY (STA. 87a)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/12 0920	4,810	50	10.5	93	169	7.3 / 8.0	— / 1.28[c]		10 / 0.44		0 / 0.00	82 / 1.34		5.5 / 0.16			0.0				26	64	[illegible]	[illegible]	Maximum [illegible]	USGS
2/15 1105	66,900	51	10.4	93	95	7.1 / 7.4	— / 0.72[c]		4.5 / 0.20		0 / 0.00	30 / 0.57	7.0 / 0.15	2.8 / 0.08			0.1				22	30	[illegible]	[illegible]	Minimum [illegible]	
3/15 1110	13,200	51	10.2	91	165	7.3 / 7.5	— / 1.34[c]		8.1 / 0.35		0 / 0.00	46 / 1.51		5.5 / 0.16			0.1				21	77		[illegible]	Median [illegible]	
4/13 0915	6,690	53	8.0	82	147	7.3 / 8.0	— / 1.22[c]		7.8 / 0.34		0 / 0.00	73 / 1.20		3.8 / 0.11			0.3				26	61	1	[illegible]		
[illegible]/7 [illegible]	7,210	61	[illegible]	[illegible]	15[illegible]	7.5 / 7.9	12 / 0.60	4.4 / 0.40	7.3 / 0.32	1.2 / 0.03	0 / 0.00	68 / 1.11	7.0 / 0.15	3.2 / 0.09	0.0 / 0.00	0.3 / 0.02	0.1	[illegible]	PO_4 0.10	[illegible]	[illegible]	[illegible]		[illegible]		
[illegible]/14 [illegible]	7,350	[illegible]	[illegible]	101	125	7.7 / 7.8	— / 1.02[c]		6.8 / 0.30		0 / 0.00	65 / 1.07		3.2 / 0.09			0.1				[illegible]	[illegible]	[illegible]	1[illegible]		
7/17 11[illegible]	[illegible]	64	[illegible]	100	12[illegible]	7.7 / 7.[illegible]	— / 0.98[c]		7.1 / 0.31		0 / 0.00	63 / 1.03		2.8 / 0.08			2.0				[illegible]	47				
[illegible] [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11[illegible]	[illegible] / 7.8	— / [illegible]		6.6 / 0.29		0 / 0.00	65 / 1.07		2.5 / 0.07			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]/14 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12[illegible]	[illegible] / 7.8	16 / 0.80	2.2 / 0.15	6.6 / 0.29	0.8 / 0.02	0 / 0.00	[illegible] / 1.11	6.0 / 0.12	3.0 / 0.08	0.7 / 0.01	[illegible] / 0.00	[illegible]	2.[illegible]	PO_4 [illegible]	[illegible]	[illegible]	[illegible]		[illegible]		
[illegible] 12,200	57	[illegible]	[illegible]	91	157	7.3 / 7.7	— / 1.14[c]		7.0 / 0.30		0 / 0.00	58 / 0.95		5.0 / 0.14			0.4				[illegible]	[illegible]	[illegible]	[illegible]		
11/27 [illegible]	[illegible]	54	[illegible]	[illegible]	13[illegible]	7.5 / 7.7	— / 1.[illegible][c]		8.5 / 0.37		0 / 0.00	73 / 1.20		3.8 / 0.11			0.0				[illegible]	[illegible]		[illegible]		
[illegible] 54,000	[illegible]	[illegible]	[illegible]	[illegible]	7[illegible]	7.2 / 7.4	— / 0.9[illegible]		[illegible] / 0.17		0 / 0.00	40 / [illegible]		2.0 / 0.06			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BUTTE CITY (STA. 87a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[a]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]					[illegible]	[illegible]	14 / [illegible]	7.1 / [illegible]	[illegible] / 0.45	1.5 / [illegible]	0 / 0.00	84 / 1.38	7.2 / 0.15	5.5 / 0.16	1.0 / 0.02	0.1 / 0.01	[illegible]	24	Fe [illegible]	115[f] 117[g]	[illegible]	[illegible]	[illegible]			[illegible]
[illegible]					[illegible]	7.[illegible]	14 / [illegible]	[illegible] / [illegible]	4.2 / [illegible]	1.3 / 0.03	0 / 0.00	[illegible] / 1.38	7.0 / 0.15	5.4 / [illegible]	0.8 / 0.1	0.1 / 0.01	0.1	24	Fe [illegible]	115[f] 116[g]	[illegible]	[illegible]				
[illegible]					[illegible]	7.[illegible]	12 / 0.60	[illegible] / 0.67	3.6 / 0.35	1.3 / [illegible]	0 / [illegible]	72 / 1.18	4.0 / [illegible]	5.2 / 0.15	1.0 / [illegible]	0.2 / 0.01	0.1	27	Fe 0.00	106[f] 107[g]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	7.4	14 / 0.70	[illegible] / 0.50	4.1 / 0.40	1.4 / [illegible]	0 / 0.00	75 / 1.23	4.0 / 0.14	6.8 / 0.19	0.4 / 0.01	0.1 / 0.01	0.1	27	Fe 0.[illegible]	111[f] 114[g]	24	[illegible]	[illegible]			
[illegible]					22	7.[illegible]	[illegible] / 0.40	[illegible] / 0.34	5.0 / 0.22	1.2 / 0.03	0 / 0.00	47 / 0.77	5.0 / 0.17	3.8 / 0.11	1.0 / 0.03	0.2 / 0.01	0.0	14	Fe 0.17	[illegible] 45[g]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	7.4	1[illegible] / [illegible]	[illegible] / 0.58	7.7 / 0.33	1.[illegible] / [illegible]	0 / 0.00	[illegible] / 1.13	10 / 0.21	[illegible] / 0.15	[illegible] / 0.01	0.1 / 0.01	[illegible]	[illegible]	Fe [illegible]	1[illegible] 107[g]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	7.4	13 / 0.65	[illegible] / [illegible]	[illegible] / 0.3[illegible]	1.4 / [illegible]	[illegible] / 0.00	[illegible] / 1.[illegible]	[illegible] / 0.17	[illegible] / 0.12	[illegible] / [illegible]	[illegible] / 0.0[illegible]	0.1	23	F [illegible]	[illegible] 120[g]	24	[illegible]	[illegible]			
[illegible]					174	7.7	15 / 0.80	[illegible] / [illegible]	8.3 / [illegible]	1.4 / [illegible]	0 / 0.00	[illegible] / 1.33	12 / 0.25	5.8 / 0.16	[illegible] / [illegible]	0.2 / 0.01	0.1	24	Fe 0.1[illegible]	117[f] 112[g]	[illegible]	0.5	2			
[illegible]					[illegible]	7.7	15 / 0.75	7.2 / 0.57	8.1 / [illegible]	1.3 / 0.03	0 / 0.00	74 / 1.20	12 / 0.25	5.2 / 0.15	0.4 / 0.01	0.2 / 0.01	0.1	24	Fe 0.07	114[f] 1[illegible][g]	[illegible]	0.7	2			
[illegible]					192	7.8	14 / 0.70	5.8 / 0.48	8.1 / 0.35	1.3 / 0.03	0 / 0.00	73 / 1.20	7.0 / 0.15	4.3 / 0.12	0.3 / 0.00	0.2 / 0.01	0.0	24	Fe 0.02	101[f] 1[illegible][g]	[illegible]	[illegible]	0			
[illegible]					[illegible]	7.[illegible]	14 / 0.70	5.1 / 0.42	5.2 / 0.30	1.4 / 0.04	0 / 0.00	72 / 1.18	8.0 / 0.17	4.8 / 0.14	0.[illegible] / 0.01	0.1 / 0.01	0.1	25	Fe 0.00	102[f] 1[illegible][g]	[illegible]	[illegible]	[illegible]			
[illegible]					[illegible]	7.1	13 / 0.65	4.7 / 0.39	7.4 / 0.32	1.5 / 0.03	0 / 0.00	68 / 1.11	7.0 / 0.15	3.5 / 0.10	0.0 / 0.00	0.1 / 0.01	0.0	24	Fe 0.02	94[f] 9[illegible][g]	[illegible]	[illegible]	4			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BUTTE CITY (STA. [illegible] continued)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]-1-10					137	7.[illegible]	12 / 0.60	5.8 / 0.48	8.0 / 0.35	1.4 / 0.04	0 / 0.00	69 / 1.13	7.4 / 0.15	4.0 / 0.12	1.0 / 0.02	[illegible]	[illegible]	25	Fe [illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]
[illegible]-11-20					13[illegible]	7.0	12 / [illegible]	6.1 / 0.50	7.5 / 0.34	1.4 / 0.04	0 / 0.00	71 / 1.16	7.2 / 0.15	4.0 / 0.11	0.7 / 0.01	[illegible]	[illegible]	25	Fe [illegible]	1[illegible]	[illegible]	[illegible]				
[illegible]-21					137	7.5	13 / [illegible]	4.7 / 0.39	7.4 / 0.34	1.4 / [illegible]	0 / 0.00	70 / 1.15	7.1 / 0.15	3.7 / 0.10	0.8 / 0.01	[illegible]	[illegible]	26	Fe [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-31					13[illegible]	7.4	13 / [illegible]	4.7 / .39	7.7 / 0.33	1.3 / [illegible]	0 / 0.00	70 / 1.[illegible]	7.[illegible] / 0.15	4.5 / 0.13	1.[illegible] / [illegible]	[illegible]	[illegible]	[illegible]	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-1-2					14[illegible]	7.2	13 / [illegible]	3.0 / 0.25	7.3 / 0.32	1.3 / [illegible]	[illegible] / 0.00	67 / 1.11	[illegible] / 0.1[illegible]	4.4 / 0.12	0.[illegible] / [illegible]	[illegible]	[illegible]	25	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]/21-3					1[illegible]	7.5	13 / 0.65	4.5 / 0.37	7.1 / 0.31	1.3 / 0.03	0 / 0.00	7[illegible] / 1.06	7.[illegible] / 0.15	4.0 / 0.11	0.8 / 0.01	[illegible] / 0.01	[illegible]	[illegible]	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]/1-10					1[illegible]6	7.4	11 / 0.55	4.7 / 0.39	7.6 / 0.33	1.3 / 0.03	0 / 0.00	68 / 1.11	5.2 / .11	3.4 / 0.10	1.1 / 0.02	[illegible] / .00	.1	25	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-11-2					137	7.5	12 / 0.60	4.6 / 0.38	7.0 / 0.30	1.1 / 0.03	0 / 0.00	72 / 1.11	5.[illegible] / 0.1	4.0 / 0.11	0.7 / .1	[illegible] / .1	.1	2[illegible]	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-21					1[illegible]6	7.4	13 / 0.65	3.8 / 0.31	7.5 / 0.33	1.3 / 0.03	0 / 0.00	68 / 1.11	5.3 / 0.14	3.[illegible] / 0.09	0.3 / 0.[illegible]	[illegible] / 0.00	[illegible]	2[illegible]	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-1-13					1[illegible]0	7.4	11 / 0.55	4.7 / 0.39	7.7 / 0.33	1.1 / 0.03	0 / 0.00	68 / 1.11	5.2 / 0.11	3.3 / 0.09	1.4 / 0.02	0.0 / 0.00	[illegible]	26	F- [illegible]	[illegible]	[illegible]	[illegible]				
[illegible]-14-15					217	7.5	14 / 0.7[illegible]	16 / 1.28	7.5 / 0.33	1.1 / 0.03	0 / 0.00	94 / 1.54	28 / 0.58	3.6 / 0.10	1.6 / 0.03	0.0 / 0.00	0.1	32	F- [illegible]	15[illegible]	14	[illegible]	[illegible]			
[illegible]-21-32					139	7.[illegible]	13 / 0.65	4.3 / 0.35	7.3 / 0.32	1.1 / 0.03	0 / 0.00	79 / 1.19	5.8 / 0.12	3.0 / 0.08	1.3 / 0.02	[illegible]	[illegible]	[illegible]	Fe [illegible]	1[illegible]	[illegible]	[illegible]	[illegible]			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT BUTTE CITY (STA. 87a continued)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]					[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 0.41	8.1 / 0.35	1.[illegible] / [illegible]	[illegible] / 0.00	[illegible] / 1.1[illegible]	[illegible] / [illegible]	4.2 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	0.1	2[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			U.S.
[illegible]					[illegible]	7.9	13 / [illegible]	[illegible] / [illegible]	7.4 / 0.32	1.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					1[illegible]1	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	7.1 / 0.31	1.1 / [illegible]	[illegible] / [illegible]	7[illegible] / 1.1[illegible]	[illegible] / [illegible]	4.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	2[illegible]	F [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
10/1-10					1[illegible]1	7.1	11 / [illegible]	[illegible] / [illegible]	7.5 / 0.33	1.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	1.7 / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					11[illegible]	7.0	[illegible] / [illegible]	[illegible] / [illegible]	6.2 / 0.27	1.2 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
10/17-31					[illegible]	7.4	1[illegible] / [illegible]	[illegible] / [illegible]	7.3 / [illegible]	1.[illegible] / [illegible]	[illegible] / [illegible]	7[illegible] / 1.1[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	1.7 / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
11/1-10					1[illegible]	7.3	11 / [illegible]	[illegible] / [illegible]	8.[illegible] / 0.3[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.2[illegible]	[illegible] / [illegible]	4.2 / [illegible]	1.2 / [illegible]	[illegible] / 0.1	[illegible]	[illegible]	F [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	5			
[illegible]					1[illegible]2	7.4	12 / [illegible]	[illegible] / [illegible]	8.1 / 0.35	2.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 1.2[illegible]	5.[illegible] / [illegible]	4.[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
11/21-30					1[illegible]	7.4	12 / [illegible]	[illegible] / [illegible]	8.[illegible] / [illegible]	2.0 / [illegible]	[illegible] / 0.00	[illegible] / 1.2[illegible]	[illegible] / [illegible]	[illegible] / 0.14	1.1 / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]					1[illegible]1	7.2	13 / [illegible]	[illegible] / [illegible]	8.1 / 0.35	1.[illegible] / [illegible]	[illegible] / [illegible]	71 / 1.1[illegible]	7.[illegible] / 0.1[illegible]	[illegible] / [illegible]	1.[illegible] / [illegible]	[illegible] / 0.1	0.1	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]	1		
[illegible]					115	7.6	11 / [illegible]	[illegible] / [illegible]	6.4 / 0.2[illegible]	1.2 / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	7.[illegible] / 0.1[illegible]	[illegible] / [illegible]	1.[illegible] / [illegible]	[illegible] / 0.1	0.1	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]			
12/22-31					1[illegible]7	7.5	13 / [illegible]	[illegible] / [illegible]	8.[illegible] / 0.35	1.[illegible] / [illegible]	[illegible] / [illegible]	74 / 1.21	[illegible] / 0.14	[illegible] / [illegible]	1.2 / [illegible]	[illegible] / [illegible]	0.1	[illegible]	F[illegible] [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	57	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT COLUSA (STA. 13b)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
2/15 1155	35,800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
3/15 1115	13,900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	1.25		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
5/7 0920	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		69 / 1.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	PO_4 0.05 As 0.00 ABS 0.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	8		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
9/19 0950	5,790	64	9.5	99	125	7.5 / 7.9	12 / 0.60	4.6 / 0.38	6.5 / 0.28	0.8 / 0.02	0 / 0.00	68 / 1.11	5.0 / 0.10	2.5 / 0.07	0.5 / 0.01	0.0 / 0.00	[illegible]	[illegible]	PO_4 [illegible] As [illegible] ABS [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
10/17 0950	15,400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	31,300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER ABOVE COLUSA TROUGH (STA. 14b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1/12 1245	5,724	50	10.6	94	241	7.5/7.1	—/1.66[c]		18/0.78		0/0.00	109/1.79		12/0.34			0.1				32	83	0	15	Maximum 2,400.	USGS
2/25 1500	26,500	51	10.2	91	92	7.2/7.2	—/0.76[c]		4.8/0.21		0/0.00	42/0.69		3.5/0.10			0.0				22	5[illegible]	4	5.0	Minimum 2.	
3/[illegible] 1215	24,400	50	10.4	92	117	7.3/7.7	—/0.94[c]		5.7/0.25		0/0.00	62/1.02		5.1/0.14			0.1				21	47	0	100	Median 62.	
4/6 1245	9,640	63	9.2	[illegible]	156	7.4/7.7	—/1.22[c]		7.4/0.32		0/0.00	78/1.28		4.2/0.12			0.0				21	[illegible]	0	[illegible]		
5/7 0755	5,240	68	8.6	93	172	7.5/7.8	13/0.65	7.2/0.59	12/0.52	1.0/0.03	0/0.00	79/1.29	13/0.27	6.5/0.18	0.1/0.00	0.0/0.00	0.0	25	PO_4 0.10; As 0.00; ABS 0.0	117[f]	29	[illegible]	0	[illegible]		
6/18 1110	6,235	[illegible]	[illegible]	[illegible]	157	7.5/7.[illegible]	—/1.38[c]		10/0.44		0/0.00	76/1.25		5.0/0.14			0.0				[illegible]	[illegible]	7	1[illegible]		
7/17 0845	6,232	69	8.4	92	154	7.5/7.7	—/1.08[c]		11/0.48		0/0.00	75/1.23		5.4/0.15			0.0				31	54	0	10		
8/20 0845	6,774	67	8.[illegible]	96	159	7.3/7.3	—/1.16[c]		12/0.52		0/0.00	78/1.28		5.5/0.16			0.0				31	53	[illegible]	[illegible]		
9/19 0825	5,729	66	8.7	95	170	7.5/7.6	14/0.70	6.8/0.56	11/0.48	1.0/0.03	0/0.00	86/1.41	2.0/0.19	6.0/0.17	0.8/0.01	0.0/0.00	0.0	24	PO_4 0.05; As 0.01; ABS 0.0	115[f]	27	[illegible]		[illegible]		
10/17 0930	21,600	56	8.8	84	114	7.0/7.1	—/0.80[c]		7.6/0.33		0/0.00	47/0.77		5.5/0.16			0.1				23	40	1	[illegible]		
11/27 0930	7,200	54	10.1	94	152	7.5/7.7	—/1.14[c]		9.3/0.40		0/0.00	79/1.29		5.0/0.14			0.0				26	57	[illegible]	25		
12/14 0905	22,000	55	[illegible].6	91	137	7.3/7.5	—/0.96[c]		9.3/0.40		0/0.00	62/1.02		5.8/0.16			0.1				29	48	0	50		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT DELTA (STA. 11)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	11.7	[illegible]	116	7.5/[illegible]	[illegible]/.01		[illegible]/.21		[illegible]/[illegible]	[illegible]/[illegible]		5.[illegible]/.14			[illegible]/[illegible]				[illegible]	[illegible]	[illegible]		M[illegible]	U.S.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/.00		[illegible]/.11		[illegible]/.00	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	3	[illegible]	1500	Minimum	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.3/7.7	[illegible]/[illegible]		[illegible]/0.10		[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	[illegible]	[illegible]		M[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	73	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/.15			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.7/8.0	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/.11	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]	PO_4 0.00		[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/.13		[illegible]/[illegible]	[illegible]/.11		1.[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.7/7.9	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/1.[illegible]		[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/8.2	[illegible]/[illegible]		1/0.04		[illegible]/[illegible]	1/[illegible]		[illegible]/.16			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	1.[illegible]	[illegible]	[illegible]	8.1/8.1	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	1.[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/1.31	1.[illegible]/[illegible]	2.[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]	P[illegible]	1[illegible]/1[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	1.[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	1.07		1/0.[illegible]		[illegible]/[illegible]	[illegible]/1.3[illegible]		1.[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11[illegible]	[illegible]/[illegible]	1.04		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/.11			[illegible]/[illegible]				[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	2/1.[illegible]		[illegible]/[illegible]			[illegible]/[illegible]				[illegible]	[illegible]				

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SACRAMENTO RIVER AT FREEPORT (STA. 15b)

Date and time sampled PST	Discharge in cfs M.D.	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										
1/8 0910	9210	46	10.7	90	225	7.5/7.8	—/1.57[c]		17/0.74		0/0.00	95/1.56		12/0.34			0.0			148[e]	32	79	1	9	Median <20. Maximum >7000. Minimum 23.	USGS
2/7 0800	9870	48	10.4	89	217	7.1/7.6	—/1.49[c]		15/0.65		0/0.00	78/1.28		11/0.31			0.1			143[e]	30	74	10	10		
3/8 0745	54400	48	10.5	90	106	7.8/7.6	—/0.80[c]		5.0/0.22		0/0.00	49/0.80		4.0/0.11			0.0			70[e]	22	40	0	150		
4/9 0815	42800	58	9.7	95	117	7.5/8.0	—/0.89[c]		6.3/0.27		0/0.00	46/0.75		8.8/0.25			0.0			77[e]	23	45	7	25		
5/3 0700	19600	60	8.7	87	123	7.3/7.4	9.6/0.48	4.9/0.40	9.1/0.35	1.1/0.03	0/0.00	52/0.85	9.0/0.19	6.5/0.18	0.6/0.01	0.1/0.01	0.0	17	ABS 0.0; PO4 0.15	83[f]	28	44	1	10		
6/6 0845	13800	66	8.3	89	163	7.5/7.7	—/1.08[c]		12/0.52		0/0.00	68/1.11	9.0/0.19	10/0.28			0.0			108[e]	32	54	0	15		
7/11 0845	10200	70	8.2	92	174	7.7/7.5	—/1.16[c]		14/0.61		0/0.00	76/1.25		9.8/0.28			0.1			115[e]	34	58	0	15		
8/6 1425	11300	70	8.9	100	170	7.3/7.7	—/1.09[c]		13/0.57		0/0.00	72/1.18		7.5/0.21			0.0			112[e]	34	54	0	20		
9/5 0925	13200	68	8.0	88	219	7.3/7.5	15/0.75	8.4/0.69	19/0.83	1.1/0.03	0/0.00	106/1.74	13/0.27	9.5/0.27	0.2/0.00	0.0/0.00	0.1	19	As 0.00; ABS 0.1; PO4 0.25	137[f] 125[g]	36	72	0	25		
10/3 1330	8800 est.	68	8.8	96	164	7.4/7.6	—/1.26[c]		11/0.48		0/0.00	83/1.36		7.2/0.20			0.1			108[e]	28	63	0	10		
11/8 1445	16100	59	9.4	93	175	7.5/7.6	—/1.21[c]		12/0.52		0/0.00	78/1.28		10/0.28			0.3			116[e]	30	61	0	15		
12/5 1350	38700	50	10.8	95	97	7.2/7.7	—/0.76[c]		4.8/0.21		0/0.00	48/0.79		3.5/0.10			0.1			64[e]	22	38	0	25		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SACRAMENTO RIVER AT FREEPORT (STA. 15b)

Date and time sampled P.S.T	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/1-10	9,310				204	7.5	15 / 0.75	9.2 / 0.76	13 / 0.57	1.4 / 0.04	0 / 0.00	90 / 1.48	14 / 0.29	11 / 0.31	1.1 / 0.02	0.1 / 0.01	0.0	22	Fe 0.01	134[f] / 138[g]	27	75	1			[illegible]
1/11-20	8,720				223	7.7	17 / 0.85	8.9 / 0.73	15 / 0.65	1.4 / 0.04	0 / 0.00	97 / 1.59	15 / 0.31	12 / 0.34	0.8 / 0.01	0.1 / 0.01	0.0	27	Fe 0.01	145[f] / 149[g]	27	79	1			
1/21-31	13,300				171	7.6	13 / 0.65	7.1 / 0.58	11 / 0.48	1.4 / 0.04	0 / 0.00	75 / 1.23	11 / 0.23	8.0 / 0.23	1.2 / 0.02	0.1 / 0.01	0.0	22	Fe 0.08	112[f] / 118[g]	27	62	1			
2/1-10	13,100				188	7.5	15 / 0.75	7.4 / 0.61	12 / 0.52	1.5 / 0.04	0 / 0.00	80 / 1.31	12 / 0.25	10 / 0.28	0.9 / 0.01	0.1 / 0.01	0.1	23	Fe 0.03	121[f] / 128[g]	27	68	1			
2/11-20	65,800				81	7.1	7.0 / 0.35	3.9 / 0.32	3.8 / 0.17	1.5 / 0.04	0 / 0.00	36 / 0.59	6.0 / 0.12	3.8 / 0.11	1.0 / 0.02	0.1 / 0.01	0.1	14	Fe 0.01	79[f] / 78[g]	19	39	1			
2/21-28	51,900				131	7.3	11 / 0.55	5.5 / 0.45	7.0 / 0.30	1.4 / 0.04	0 / 0.00	56 / 0.92	8.0 / 0.17	6.0 / 0.17	1.0 / 0.02	0.2 / 0.01	0.1	19	Fe 0.14	87[f] / 94[g]	22	56	1			
3/1-10	45,100				127	7.5	10 / 0.50	5.6 / 0.46	7.0 / 0.30	1.3 / 0.03	0 / 0.00	59 / 0.97	7.0 / 0.15	5.0 / 0.14	1.0 / 0.01	0.2 / 0.01	0.1	18	Fe 0.10	84[f] / 88[g]	23	48	1			
3/11-20	42,200				141	7.5	12 / 0.60	5.8 / 0.48	7.9 / 0.34	1.1 / 0.03	0 / 0.00	64 / 1.05	9.0 / 0.19	5.2 / 0.15	0.4 / 0.01	0.2 / 0.01	0.1	18	Fe 0.10	92[f] / 88[g]	23	54	2			
3/21-31	27,200				157	7.6	12 / 0.60	6.8 / 0.56	9.7 / 0.42	1.2 / 0.03	0 / 0.00	70 / 1.15	11 / 0.23	7.0 / 0.20	0.6 / 0.01	0.1 / 0.01	0.0	19	Fe 0.03	101[f] / 98[g]	26	58	1			
4/1-10	30,400				131	7.8	14 / 0.70	3.9 / 0.32	7.3 / 0.32	0.9 / 0.02	0 / 0.00	62 / 1.02	9.0 / 0.19	5.8 / 0.16	0.9 / 0.01	0.1 / 0.01	0.1	19	Fe 0.00	92[f] / 88[g]	24	31	0			
4/11-20	30,600				101	7.4	11 / 0.55	2.8 / 0.23	5.2 / 0.23	0.8 / 0.02	0 / 0.00	48 / 0.79	5.0 / 0.10	4.8 / 0.14	0.9 / 0.01	0.1 / 0.01	0.0	18	Fe 0.00	73[f] / 78[g]	22	29	1			
4/21-30	23,700				100	7.5	10 / 0.50	2.9 / 0.24	5.4 / 0.24	1.0 / 0.03	0 / 0.00	46 / 0.75	5.0 / 0.10	5.2 / 0.15	0.9 / 0.01	0.1 / 0.01	0.0	17	Fe 0.00	71[f] / 76[g]	24	27	1			
5/1-10	22,000				124	7.6	10 / 0.50	4.7 / 0.39	8.4 / 0.37	0.8 / 0.02	0 / 0.00	53 / 0.87	9.0 / 0.19	6.3 / 0.18	1.1 / 0.02	0.0 / 0.00	0.0	19	Fe 0.00	92[f] / 87[g]	23	[illegible]	2			
5/11-15	22,300				136	7.8	11 / 0.55	4.6 / 0.38	9.3 / 0.40	0.8 / 0.02	0 / 0.00	60 / 0.98	9.0 / 0.19	6.0 / 0.17	3.0 / 0.05	0.1 / 0.01	0.0	18	Fe 0.02	92[f] / 98[g]	20	41	3			
5/16-20	19,400				163	7.5	12 / 0.60	6.3 / 0.52	12 / 0.52	1.0 / 0.03	0 / 0.00	70 / 1.15	13 / 0.27	8.2 / 0.23	2.8 / 0.05	0.1 / 0.01	0.1	19	Fe 0.02	109[f] / 109[g]	31	48	0			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 5-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SACRAMENTO RIVER AT FREEPORT (STA. 15b)
(continued)

Date and time sampled P.S.T	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1960																										
[illegible]-1-1	[illegible]				173	7.1	13/0.65	6.4/0.53	13/0.57	1.1/0.03	0/0.00	76/1.25	12/0.25	9.2/0.26	1.1/0.02	0.1/0.01	0.0	19	Fe 0.03	112[f]/112[g]	32	59	0			USGS
[illegible]-1-1	[illegible]				173	7.3	14/0.70	6.1/0.50	13/0.57	1.1/0.03	0/0.00	76/1.25	11/0.23	10/0.28	1.1/0.02	0.1/0.01	0.0	21	Fe 0.00	114[f]/122[g]	32	60	0			
[illegible]-11-[illegible]	[illegible]				154	7.2	12/0.60	5.8/0.48	11/0.48	1.1/0.03	0/0.00	68/1.11	9.0/0.19	9.6/0.27	1.0/0.02	0.1/0.01	0.0	21	Fe 0.00	105[f]/109[g]	32	54	0			
[illegible]-1-[illegible]	11,100				161	7.3	14/0.70	5.1/0.42	12/0.52	0.9/0.02	0/0.00	69/1.13	9.0/0.19	10/0.28	1.0/0.02	0.1/0.01	0.0	21	Fe 0.00	107[f]/120[g]	31	56	0			
[illegible]-1-1	[illegible]				175	7.4	13/0.65	6.1/0.50	13/0.57	0.9/0.02	0/0.00	78/1.28	10/0.21	10/0.28	1.4/0.02	0.0/0.00	0.1	22	Fe 0.01	114[f]/112[g]	33	58	0			
[illegible]/11-20	[illegible]				175	7.4	13/0.65	6.0/0.49	13/0.57	0.9/0.02	0/0.00	80/1.31	10/0.21	8.8/0.25	1.0/0.02	0.0/0.00	0.1	21	Fe 0.01	113[f]/109[g]	33	57	0			
[illegible]/21-31	11,400				167	7.4	12/0.60	5.8/0.48	13/0.57	0.9/0.02	0/0.00	78/1.28	8.8/0.18	8.6/0.24	1.0/0.02	0.0/0.00	0.0	21	Fe 0.01	109[f]/109[g]	34	54	0			
[illegible]-1-1[illegible]	11,200				189	7.7	15/0.75	6.2/0.51	14/0.61	1.1/0.03	0/0.00	83/1.44	7.4/0.15	10/0.28	1.2/0.02	0.0/0.00	0.1	26	Fe 0.01	124[f]/129[g]	32	63	0			
5/11-20	11,900				182	7.6	14/0.70	6.6/0.54	14/0.61	1.1/0.03	0/0.00	84/1.38	9.6/0.20	9.0/0.25	1.1/0.02	0.0/0.00	0.1	27	Fe 0.01	124[f]/122[g]	32	62	0			
5/21-31	11,700				180	7.5	14/0.70	5.8/0.48	14/0.61	1.1/0.03	0/0.00	81/1.33	10/0.21	9.8/0.28	2.7/0.04	0.1/0.01	0.0	27	Fe 0.01	125[f]/115[g]	34	59	0			
6/1-10	12,600				221	7.7	15/0.75	8.9/0.73	18/0.78	1.4/0.04	0/0.00	107/1.75	9.0/0.19	12/0.34	2.1/0.03	0.4/0.02	0.1	24	Fe 0.00	144[f]/144[g]	34	74	0			
6/11-19	12,[illegible]				234	7.9	16/0.80	8.8/0.72	18/0.78	1.2/0.03	0/0.00	113/1.85	5.2/0.11	14/0.39	2.2/0.04	0.4/0.02	0.1	22	Fe 0.00	144[f]/151[g]	33	76	0			
6/20-30	11,100				176	7.8	17/0.85	4.7/0.39	12/0.52	1.3/0.03	0/0.00	84/1.38	6.0/0.12	9.3/0.26	2.1/0.03	0.4/0.02	0.0	21	Fe 0.00	115[f]/115[g]	29	62	0			
10/1-13	11,400				165	7.2	13/0.65	6.3/0.52	11/0.48	1.3/0.03	0/0.00	78/1.28	8.4/0.17	7.8/0.22	4.0/0.06	0.3/0.02	0.0	23	Fe 0.01	113[f]/108[g]	29	59	0			
10/14-19	7,200				82	6.9	7.1/0.35	3.2/0.26	4.0/0.17	1.4/0.04	0/0.00	36/0.59	4.8/0.10	2.8/0.08	2.5/0.04	0.2/0.01	0.0	13	Fe 0.13	57[f]/59[g]	21	30	0			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SACRAMENTO RIVER AT FREEPORT (STA. 15b)
(continued)

Date and time sampled P.S.T.	Discharge in cfs Avg. MD	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
10/20-31	28,300				145	7.1	12 / 0.60	5.5 / 0.45	8.4 / 0.37	1.7 / 0.04	0 / 0.00	69 / 1.13	7.4 / 0.15	5.6 / 0.16	2.0 / 0.03	0.2 / 0.01	0.0	22	Fe 0.06	99[f] / 107[g]	25	53	0			USGS
11/1-10	17,000				148	7.4	12 / 0.60	6.0 / 0.49	9.0 / 0.39	1.6 / 0.04	0 / 0.00	71 / 1.16	8.4 / 0.17	5.9 / 0.17	1.4 / 0.02	0.1 / 0.01	0.0	21	Fe 0.00	100[f] / 101[g]	26	55	0			
11/11-20	15,500				148	7.4	12 / 0.60	6.1 / 0.50	9.6 / 0.42	1.6 / 0.04	0 / 0.00	72 / 1.18	7.6 / 0.16	6.0 / 0.17	1.3 / 0.02	0.1 / 0.01	0.0	22	Fe 0.01	101[f] / 100[g]	27	55	0			
11/21-30	16,600				145	7.4	12 / 0.60	5.6 / 0.46	9.0 / 0.39	1.7 / 0.04	0 / 0.00	71 / 1.16	7.0 / 0.15	5.9 / 0.17	1.4 / 0.02	0.1 / 0.01	0.0	21	Fe 0.02	99[f] / 100[g]	26	53	0			
12/1-3	20,300				140	7.1	13 / 0.65	4.9 / 0.40	8.7 / 0.38	1.2 / 0.03	0 / 0.00	65 / 1.07	8.0 / 0.17	6.4 / 0.18	1.8 / 0.03	0.2 / 0.01	0.1	20		96[f]	26	53	0			
12/4-10	30,900				113	7.3	11 / 0.55	4.4 / 0.36	6.0 / 0.26	0.9 / 0.02	0 / 0.00	57 / 0.93	5.8 / 0.12	5.6 / 0.16	1.9 / 0.03	0.2 / 0.01	0.0	20	Fe 0.00	84[f] / 85[g]	22	45	0			
12/11-16	21,300				137	7.5	12 / 0.60	5.8 / 0.48	8.3 / 0.36	1.0 / 0.03	0 / 0.00	68 / 1.11	7.0 / 0.15	6.8 / 0.19	1.6 / 0.03	0.2 / 0.01	0.0	23	Fe 0.00	99[f] / 102[g]	24	54	0			
12/17-21	47,500				106	7.3	9.7 / 0.48	3.6 / 0.30	5.2 / 0.23	1.4 / 0.04	0 / 0.00	50 / 0.82	5.4 / 0.11	4.2 / 0.12	2.1 / 0.03	0.0 / 0.00	0.1	19	Fe 0.19 (unfiltered)	76[f]	22	39	0			
12/22-31	34,500				134	7.3	12 / 0.60	4.9 / 0.40	7.8 / 0.34	1.6 / 0.04	0 / 0.00	66 / 1.08	6.8 / 0.14	5.0 / 0.14	1.9 / 0.03	0.1 / 0.01	0.1	21	Fe 0.02	94[f] / 93[g]	25	50	0			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER NEAR HAMILTON CITY (STA. 13)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/1.11		[illegible]/[illegible]		[illegible]/0.00	[illegible]/1.0[illegible]		[illegible]/0.1[illegible]			[illegible]/0.0				[illegible]	[illegible]	[illegible]	[illegible]	Maximum 7,000.	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/0.0[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/0.04			[illegible]/0.0				[illegible]	[illegible]	[illegible]	[illegible]	Minimum [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/1.1[illegible]		[illegible]/[illegible]		[illegible]/0.00	[illegible]/1.1[illegible]		[illegible]/.15			[illegible]				[illegible]	[illegible]	[illegible]		Median [illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		0/[illegible]	[illegible]/1.11		[illegible]/0.1[illegible]			[illegible]				22	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/1.2	[illegible]/[illegible]	[illegible]/0.02	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]	[illegible]	PO_4 [illegible] As [illegible] ABS [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]			
7/18 0735	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/1.[illegible]		4.[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 0740	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
9/20 0815	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	1.[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/1.[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]/[illegible]	[illegible]	[illegible]	PO_4 [illegible] As [illegible] ABS [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 0750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	[illegible]/1.0[illegible]		[illegible]/0.14			[illegible]				[illegible]	[illegible]	[illegible]			
[illegible] 0910	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/1.2		[illegible]/[illegible]		[illegible]/1.00	[illegible]/1.0[illegible]		[illegible]/.1[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	1[illegible]		
12/19 [illegible]	23,440	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/.27		[illegible]/[illegible]		[illegible]/.0	[illegible]/0.[illegible]		[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE R-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT KESWICK (STA. 12)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/11 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / 1.13		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible] / 0.5		[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			0.1				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		6.9 / 0.30		[illegible] / [illegible]	[illegible] / [illegible]		3.4 / .11			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	6.3 / 0.27	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / .11	[illegible] / [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 [illegible] / [illegible] As [illegible] / [illegible] ABC [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	8,790	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		6.0 / 0.26		[illegible] / [illegible]	58 / 0.95		[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	10,500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		6.4 / 0.28		[illegible] / 0.00	58 / 0.95	[illegible] / 0.10	[illegible] / 0.07			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	11,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / 0.28		[illegible] / [illegible]	59 / 0.97	[illegible] / 0.1	[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	7,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	4.1 / .34	5.5 / 0.24	0.8 / 0.2	0 / 0.00	58 / 0.95	[illegible] / [illegible]	2.0 / [illegible]	[illegible] / 0.00	[illegible] / [illegible]	[illegible]	[illegible]	PO_4 0.10 As 0.00 ABS 0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 0730	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.1 / 7.6	[illegible]		5.4 / 0.26		0 / 0.00	59 / 0.97	[illegible] / 0.08	4.2 / 0.12			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible]		5.8 / 0.25		0 / 0.00	[illegible] / 1.02	[illegible] / [illegible]	[illegible] / [illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	53	[illegible]	[illegible]	[illegible]	7.1 / [illegible]	[illegible]		7.6 / 0.33		0 / 0.00	66 / 1.08	[illegible] / [illegible]	2.6 / 0.07			0.1				[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SACRAMENTO RIVER AT RIO VISTA (STA. 16)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[a]/[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/8 1200		46	9.8	82	201	7.1/7.6	1.47[c]		12/0.52		0/0.00	81/1.33		9.8/0.28			0.1			129[e]	26	74	8	20	Median 230. Maximum >7000. Minimum 2.3	USGS
2/7 1030		48	10.1	87	212	7.1/7.8	1.41[c]		14/0.61		0/0.00	76/1.25		11/0.31			0.1			136[e]	30	72	10	25		
3/8 1015		49	10.1	88	250	7.1/8.0	1.68[c]		18/0.78		0/0.00	78/1.28	33/0.69	14/0.39			0.2			160[e]	32	84	20	50		
4/9 1030		61	9.1	92	133	7.1/7.9	0.92[c]		7.0/0.30		0/0.00	56/0.92		8.2/0.23			0.1			85[e]	25	46	0	30		
5/3 0915		62	9.1	93	118	7.3/7.6	9.6/0.48	4.7/0.39	7.6/0.33	1.2/0.03	0/0.00	50/0.82	9.0/0.19	6.0/0.17	0.6/0.01	0.1/0.01	0.1	17	As 0.01; ABS 0.0; PO_4 0.10	81[f]	27	44	3	15		
6/6 0835		68	7.8	86	180	7.1/7.5	1.16[c]		13/0.57		0/0.00	59/0.97	25/0.52	7.8/0.22			0.0			115[e]	33	58	10	25		
7/11 1145		71	8.2	93	186	7.4/7.4	1.21[c]		13/0.57		0/0.00	74/1.21		9.9/0.28			0.1			119[e]	32	60	0	20		
8/8 1255		72	9.4	108	185	7.2/7.3	1.20[c]		14/0.61		0/0.00	68/1.11		8.0/0.23			0.0			118[e]	34	60	4	35		
9/5 1150		69	7.6	83	203	7.4/7.6	14/0.70	7.9/0.65	16/0.70	1.3/0.03	0/0.00	99/1.62	11/0.23	9.4/0.27	0.4/0.01	0.1/0.01	0.1	19	As 0.01; ABS 0.0; PO_4 0.00	128[f]/132[g]	34	68	0	20		
10/3 0955		67	8.6	93	176	7.4/7.6	1.26[c]		12/0.52		0/0.00	87/1.43		8.5/0.24			0.0			113[e]	29	63	0	20		
11/8 1145		60	7.9	79	177	7.3/7.9	1.26[c]		12/0.52		0/0.00	79/1.29		10/0.28			0.0			113[e]	29	63	0	30		
12/5 1115		50	9.9	87	169	7.3/7.7	1.22[c]		10/0.44		0/0.00	74/1.21		8.3/0.23			0.2			108[e]	27	61	0	20		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

SPO

TABLE 3-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT SNODGRASS SLOUGH (STA. 97)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH [b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm [g]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by [i]
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/18 1140		46			226	7.1	18	8.0	16	1.2	0.0	89	15	15	0.[illegible]					14[illegible]	31					
2/12 1200		50			107	7.1	8.6	5.6	5.5	1.2	0.0	36	7.7	8.5	0.0					92	21					
3/12 1245		50			131	7.1	11	5.7	6.0	0.8	0.0	52	11	7.8	0.[illegible]					104	2[illegible]					
4/16 1330		59			114	7.1	11	4.4	5.1	0.39	0.0	47	14	7.1	0.0					84	1[illegible]					
5/14 1320		62			139	7.2	9.4	6.0	9.7	1.6	0.0	51	7.7	7.1	0.[illegible]					102	30					
6/28 1505		72			181	7.4	14	7	13	1.2	0.0	73	14	15	0.62					142	3[illegible]					
7/16 1315		72			165	7.6	14	6	12	1.2	0.0	68	14	9	0.62					1[illegible]0	30					
8/13 1210		77			172	7.7	14	8.1	14	0.8	0.0	77	12	8.5	0.0					128	30					
9/20 1405		71			181	6.9	17	6.1	12	1.6	0.0	88	8.2	11	0.0					106	27					
10/15 1315		64			62	6.6	6.2	2.8	3.0	1.2	0.0	26	8.2	4.3	1.2					72	19					
11/13 1220		60			171	8.0	17	7	10	0.78	0.0	83	6.7	9	0.[illegible]					15[illegible]	2[illegible]					
12/26 1120		47			123	7.5	10	5.0	6.9	1.2	0.0	57	8.2	6.4	0.0					84	2[illegible]					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SACRAMENTO RIVER AT TOLAND LANDING (STA. 15a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N.C. ppm			
1962	Tidal																									USBR
2/15 1200		50																								
3/13 1130		52			178															124						
4/16 1130					122															92						
5/14 1100		68			141															104						
6/18 1040		70			172															126						
7/16 1440		71			267															204						
8/21 1450		77			328															260						
9/20 1230		70			324															224						
10/15 1110		64			123															100						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5)

SACRAMENTO SLOUGH NEAR KNIGHTS LANDING (STA. 14a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
1/1 1210	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]		Tot. Alk. 242		[illegible]	[illegible]	[illegible]	[illegible]	Maximum 2,400.	USGS
2/15 1425	FLO DED	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	600	[illegible]	
[illegible] 1130	FL [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
4/6 1200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
5/7 0725	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	PO_4 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
6/18 1025	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / .00	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
7/17 0800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / 0.00	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	PO_4 [illegible]	[illegible] / [illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	FL DED	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	N T SAMPLED																									
[illegible]	FL DED - N T SAMPLED																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SALT SLOUGH AT SAN LUIS RANCH (STA. No. 24c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																									Median 62. Maximum 7000. Minimum 13.	USGS
1/11 1230	51	48	4.6	39	2,350	7.6	c / 9.38		332 / 14.44		0.0 / 0.00	255 / 4.18	330 / 6.87	439 / 12.38			1.5				61	469	260	1		
2/7 1230	70	53	5.2	48	2,600	7.4	c / 10.92		380 / 16.53		0.0 / 0.00	240 / 3.93	522 / 10.89	456 / 12.86			2.6				60	546	349	20		
3/1 0915	—	49	8.2	72	2,430	7.7	c / 9.80		346 / 15.05		0.0 / 0.00	214 / 3.51		412 / 11.62			6.4				61	490	315	15		
4/5 1025	96	66	5.4	58	2,440	7.8	c / 9.60		342 / 14.88		0.0 / 0.00	192 / 3.15	508 / 10.58	385 / 10.86			1.2				61	480	323	30		
5/1 1315	79	66	5.7	62	1,530	7.6	70 / 3.49	38 / 3.10	208 / 9.05	6.8 / 0.17	0.0 / 0.00	200 / 3.28	221 / 4.60	270 / 7.62	3.4 / 0.05	0.3 / 0.02	0.9	18	PO_4 0.50	935	57	330	166	90		
6/5 1015	76	68	7.4	80	1,070	7.5	c / 4.48		134 / 5.83		0.0 / 0.00	162 / 2.66	123 / 2.56	176 / 4.96			0.1				57	224	91	60		
7/3 1245	50	80	7.5	92	1,020	8.0	c / 4.26		130 / 5.66		0.0 / 0.00	158 / 2.59	104 / 2.17	169 / 4.77			0.3				57	213	83	15		
8/8 1310	60	80	7.0	86	862	7.7	c / 4.04		111 / 4.83		0.0 / 0.00	160 / 2.62	83 / 1.73	148 / 4.18			0.3				54	202	71	30		
9/7 1130	105	75	6.0	71	976	7.8	47 / 2.35	23 / 1.93	124 / 5.39	4.4 / 0.11	0.0 / 0.00	174 / 2.85	96 / 2.00	168 / 4.74	2.6 / 0.04	0.2 / 0.01	0.3	25	PO_4 0.30	576	55	214	71	30		
10/5 1100	25	65	9.8	104	1,750	8.2	c / 6.99		250 / 10.88		0.0 / 0.00	217 / 3.56	203 / 4.23	353 / 9.96			0.6				61	350	172	15		
11/9 1315	54	65	7.1	75	1,760	7.9	c / 7.38		248 / 10.79		0.0 / 0.00	234 / 3.84	256 / 5.33	303 / 8.55			1.1				59	369	177	25		
12/7 1415	18	54	11.8	110	2,180	8.3	c / 8.50		294 / 12.79		4 / 0.13	237 / 3.88	229 / 4.77	460 / 12.98			0.6				60	425	224	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SAN JOAQUIN RIVER AT ANTIOCH (STA. 28)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/11 1355		48	9.0	77	1,050	7.3/7.7	3.15[c]		138/6.00		0/0.00	82/1.34		250/7.05			0.1			578[e]	66	158	91	30	Median 2[illegible]. Maximum >7000. Minimum 23.	USGS
2/15 0920		52	9.2	83	336	7.1/7.6	2.04[c]		26/1.13		0/0.00	75/1.23		20/0.56			0.1			185[e]	36	102	40	45		
3/8 1015		52	9.5	86	379	7.1/7.7	2.12[c]		34/1.48		0/0.00	70/1.15		44/1.24			0.1			208[e]	41	106	49	35		
4/11 0950		66	8.4	90	241	7.3/7.6	1.62[c]		20/0.87		0/0.00	71/1.16		26/0.73			0.1			133[e]	35	81	[illegible]	40		
5/8 0930		68	8.5	93	208	7.8/7.6	11/0.55	6.0/0.49	21/0.91	1.6/0.04	0/0.00	52/0.85	14/0.29	29/0.82	0.2/0.00	0.3/0.02	0.0	15	PO_4 0.00	124[f]	46	52	9	25		
6/6 0830		68	8.2	90	360	8.2/7.5	1.50[c]		46/2.00		0/0.00	68/1.11		60/1.69			0.0			198[e]	57	75	19	25		
7/10 1500		73	8.5	98	1,050	7.7/7.4	2.84[c]		162/7.05		0/0.00	76/1.25		253/7.14			0.1			578[e]	71	142	80	15		
8/2 1135		72	7.8	89	2,570	7.5/7.6	5.71[c]		440/19.14		0/0.00	83/1.36		690/19.46			0.2			1414[e]	77	285	217	45		
9/5 1350		73	7.5	98	1,920	7.5/7.6	29/1.45	38/3.11	302/13.14	10/0.26	0/0.00	90/1.48	79/1.64	512/14.44	2.9/0.05	0.1/0.01	0.1	12	PO_4 0.15	1030[f]/1050[g]	73	228	154	60		
10/3 1110		69	7.0	78	971	7.4/7.6	2.80[c]		146/6.35		0/0.00	102/1.67		222/6.26			0.1			534[e]	69	140	56	45		
11/13 1010		62	7.2	74	304	7.2/7.9	1.56[c]		31/1.35		0/0.00	81/1.33		42/1.18			0.0			167[e]	46	78	12	25		
12/10 1010		53	8.9	82	225	7.3/7.6	1.30[c]		18/0.78		0/0.00	77/1.26		24/0.68			0.0			124[e]	38	65	2	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE F-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT BRANDT BRIDGE (STA. 101a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
[illegible]	[illegible]																									USBR
[illegible]		[illegible]			[illegible]				52					73						364	48					
[illegible]		[illegible]			[illegible]				27					36						172	43					
[illegible]		71			[illegible]				68					111						380	[illegible]					
[illegible]		62			[illegible]				[illegible]					124						476	44					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT CROWS LANDING BRIDGE (STA. NO. 26b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/18 1100	---	45	10.9	90	1,630	7.7	63 / 3.14	44 / 3.58	224 / 9.74	4.4 / 0.11	0.0 / 0.00	244 / 4.00	239 / 4.98	259 / 7.31	4.5 / 0.07	0.5 / 0.03	1.1	15		1010	59	336	136	20	Median 62. Maximum 7000. Minimum 6.2	
2/8 1145	---	52	9.1	82	1,820	7.9	[c] / 7.17		248 / 10.79		0.0 / 0.00	216 / 3.54		296 / 8.35			1.3				60	358	181	30		
3/1 1120	---	48	10.7	93	715	7.6	[c] / 2.90		91 / 3.96		0.0 / 0.00	116 / 1.90		100 / 2.82			0.5				58	145	50	35		
4/5 1300	---	67	9.9	107	1,190	7.7	[c] / 4.84		156 / 6.29		0.0 / 0.00	146 / 2.39	181 / 3.77	205 / 5.18			0.9				58	242	122	60		
5/1 1050	---	64	10.3	108	1,470	7.8	60 / 2.99	36 / 2.97	200 / 8.70	4.0 / 0.10	0.0 / 0.00	161 / 2.64	194 / 4.04	272 / 7.67	3.2 / 0.05	0.2 / 0.01	0.5	19	PO_4 0.40	868	59	298	166	30		
6/5 1240	---	65	9.4	99	123	7.1	[c] / 0.58		12 / 0.52		0.0 / 0.00	28 / 0.46		23 / 0.65			0.0				47	29	6	25		
7/3 1000	---	74	8.2	95	928	7.7	[c] / 3.88		124 / 5.39		0.0 / 0.00	128 / 2.10		155 / 4.37			0.4				59	190	85	9		
8/9 1000	---	76	8.4	100	925	7.7	[c] / 4.08		124 / 5.39		0.0 / 0.00	172 / 2.82		151 / 4.26			0.3				57	204	63	15		
9/6 1000	---	73	8.2	94	810	7.8	37 / 1.85	19 / 1.55	109 / 4.74	3.4 / 0.09	0.0 / 0.00	159 / 2.61	80 / 1.67	133 / 3.75	3.2 / 0.05	0.2 / 0.01	0.2	22	PO_4 0.50	485	58	170	40	30		
10/4 1100	---	68	9.2	100	836	7.9	[c] / 3.48		108 / 4.70		0.0 / 0.00	163 / 2.67		136 / 3.84			0.2			491	57	174	40	15		
11/8 1115	---	60	9.1	91	1,210	8.2	[c] / 5.00		166 / 7.22		0.0 / 0.00	222 / 3.64		196 / 5.53			0.4			919	59	250	68	10		
12/6 1135	---	55	9.8	91	1,540	8.2	[c] / 6.12		202 / 8.79		0.0 / 0.00	206 / 3.38		255 / 7.19			0.7				59	300	137	10		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT CROWS LANDING BRIDGE (STA. 26b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1960																										
1/15 1100		44			1,543				198					248						976	56					U.F.R.
2/14 1410		52			569				39					43						266	46					
3/14 1315		54			666				72					89						424	47					
4/17 1250		70			1,324				169					224						874	55					
5/15 1215		64			504				54					77						314	47					
6/14 1200		64			196				17					30						126	38					
7/16 1305		79			798				91					130						504	50					
8/15 1255		79			862				98					138						532	49					
9/17 1100		73			855				98					142						512	50					
10/16 1210		60			985				123					182						664	54					
11/15 1225		59			1,289				161					219						824	54					
12/13 1200		53			1,363				--					243						840	--					

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR DOS PALOS (STA. 25a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							equivalents per million																			
1962																										
1/15 1510		45			760	8.5	40	21	80	3.1	5.1	126	81	127	0.6					474	45					[illegible]
2/14 1610		52			972	7.5	53	22	109	3.9	0.0	145	136	143	2.5					596	51					
3/15 1330		54			1,065	8.0	47	31	120	3.1	0.0	149	147	173	0.6					662	51					
4/16 1555		70			656	7.3	32	19	70	2.0	0.0	91	99	98	1.9					424	49					
5/15 1500		65			400	7.5	20	11	37	1.2	0.0	63	52	53	0.62					254	45					
6/14 1515		64			317	7.4	16	9.0	31	2.0	0.0	64	36	42	0.6					194	46					
7/16 1600		82			375	7.4	17	8.5	26	1.6	0.0	72	41	31	0.6					192	41					
8/15 1530		80			493	7.0	28	13	44	2.0	0.0	77	34	84	0.6					303	43					
9/17 1325		74			439	7.4	22	12	47	2.3	0.0	90	40	65	0.0					270	49					
10/16 1410		60			656	8.0	30	21	75	2.3	0.0	129	60	109	0.6					428	50					
11/15 1500		59			756	7.9	38	20	87	2.3	0.0	127	81	138	0.6					488	51					
12/13 1430		53			823	7.9	39	19	87	2.7	0.0	122	86	133	1.2					482	52					

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE (STA. NO. 25c)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]																										USGS
[illegible]/11 31	[illegible]	[illegible]	[illegible]	[illegible]	1,7[illegible]	[illegible].1	c [illegible]/[illegible]		232/10.0[illegible]		0.0/0.00	212/3.47	225/4.[illegible]	328/[illegible]			0.7				58	361	187	15	Median 42. Maximum 7000. Minimum 2.3	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.4	c [illegible]/10.2[illegible]		250/1[illegible].20		0.0/0.00	226/3.70	410/8.5[illegible]	450/12.78			2.3				60	512	327	25		
[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	c [illegible]/4.3[illegible]		120/5.[illegible]		0.0/0.00	140/2.29	147/3.06	147/4.1[illegible]			0.9				56	218	103	80		
[illegible] 11[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.2	c [illegible]/7.[illegible]		247/10.[illegible]1		0.0/0.00	178/2.[illegible]	204/6.12	360/10.1[illegible]			1.4				57	394	248	45		
[illegible]/[illegible] 11[illegible]	173	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]	76/3.[illegible]	2[illegible]/3.1[illegible]	210/[illegible].14	6.6/0.17	0.0/0.00	169/2.77	184/3.83	323/[illegible].11	3.0/0.0[illegible]	0.3/0.02	0.5	12	ABS 0.0; PO_4 0.40	941	57	338	199	45		
[illegible]/[illegible] 1[illegible]	1[illegible]	71	[illegible].4	[illegible]7	1,[illegible]	7.7	c [illegible]/6.3[illegible]		210/[illegible].14		0.0/0.00	179/2.93	168/3.50	308/[illegible].69			0.1				5[illegible]	317	170	35		
7/3 1[illegible]	1[illegible]	7[illegible]	[illegible].4	126	1,580	7.[illegible]	c 6.64		204/8.87		0.0/0.00	198/3.25	152/3.16	305/8.60			0.3				57	332	170	10		
8/3 151[illegible]	12[illegible]	[illegible]	1[illegible].0	137	1,000	7.6	c 4.72		140/6.09		0.0/0.00	190/3.11	104/2.17	192/5.42			0.3				56	236	80	20		
[illegible]/7 1130	130	7[illegible]	[illegible].0	106	1,150	[illegible].1	54/2.[illegible]	26/2.11	146/6.35	4.7/0.12	0.0/0.00	196/3.21	111/2.31	208/5.87	3.0/0.05	0.3/0.02	0.2	23	ABS 0.0; As 0.01; PO_4 0.45	673	56	240	79	20		
10/4 1300	[illegible]	[illegible]	[illegible].0	98	1,[illegible]	8.1	c [illegible]/[illegible]		228/9.92		0.0/0.00	206/3.38	164/3.41	354/9.99			0.3				59	350	181	15		
11/8 [illegible]	3[illegible]	[illegible]	[illegible].0	[illegible]	2,170	7.9	c 9.72		292/12.70		0.0/0.00	218/3.57	224/4.67	452/12.75			0.5				59	436	257	10		
12/7 1[illegible]	[illegible]	52	[illegible].0	[illegible]4	3,840	7.8	c 15.28		520/22.62		0.0/0.00	250/4.10	430/8.95	885/24.97			0.9				60	764	559	15		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT FRIANT DAM (STA. NO. 24)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[a]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/8 0930	58	48	10.2	88	55	7.0	—/0.30[c]		5.3/0.23		0.0/0.00	21/0.35		4.8/0.14			0.2				41	15	0	6	Median 62. Maximum 7000. Minimum 0.13	
2/5 1020	53	47	11.4	97	57	7.0	—/0.30[c]		5.4/0.23		0.0/0.00	22/0.36		5.1/0.14			0.1				43	15	0	4		
3/5 1300	65	51	12.2	102	120	7.4	—/0.68[c]		11/0.48		0.0/0.00	46/0.75		8.5/0.24			0.1				41	34	0	8		
4/9 0930	68	51	12.2	109	78	7.4	—/0.46[c]		7.7/0.33		0.0/0.00	31/0.51		6.5/0.18			0.1				42	23	0	15		
5/7 0930	106	50	11.3	100	63	7.1	5.2/0.26	1.0/0.08	5.7/0.25	1.0/0.03	0.0/0.00	22/0.36	1.6/0.03	6.0/0.17	1.6/0.03	0.3/0.02	0.0	12	PO_4 0.20	45	40	17	0	3		
6/7 1225	132	53	13.0	119	59	7.1	—/0.32[c]		5.3/0.23		0.0/0.00	21/0.34		7.0/0.20			0.0				42	16	0	6		
7/10 1305	162	55	12.7	119	55	7.3	—/0.30[c]		5.5/0.24		0.0/0.00	21/0.34		4.9/0.14			0.0				44	15	0	4		
8/6 0825	155	49	11.9	105	57	7.1	—/0.28[c]		5.5/0.24		0.0/0.00	24/0.39		4.5/0.13			0.1				46	14	0	7		
9/4 0830	118	49	12.0	105	54	7.3	4.4/0.22	0.6/0.05	5.1/0.22	0.5/0.01	0.0/0.00	22/0.36	1.0/0.02	3.7/0.10	1.0/0.02	0.2/0.01	0.0	12	PO_4 0.10	40	44	14	0	3		
10/5 1320	91	56	12.3	117	60	7.1	—/0.30[c]		6.4/0.28		0.0/0.00	20/0.33		6.0/0.17			0.1				48	15	0	20		
11/8 1145	79	49	9.5	83	55	7.1	—/0.30[c]		4.8/0.21		0.0/0.00	22/0.36		4.0/0.11			0.0				41	15	0	3		
12/6 1040	69	45	12.3	102	51	7.5	—/0.27[c]		4.7/0.20		0.0/0.00	20/0.33		3.4/0.10			0.0				43	14	0	3		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SAN JOAQUIN RIVER AT GARWOOD BRIDGE (STA. 101)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/11 1330		46	8.0	67	1270	7.6/8.0	5.72[c]		151/6.57		0/0.00	190/3.11		237/6.69			0.4			719[e]	53	286	130	13	Median 1300 Maximum >7000. Minimum 62.	USGS
2/15 1600		54	7.2	67	211	6.9/7.2	1.33[c]		18/0.78		0/0.00	61/1.00		19/0.54			0.3			119[e]	37	67	17	95		
3/8 1230		54	9.2	85	460	7.2/7.8	2.00[c]		58/2.52		0/0.00	90/1.48		54/1.52			0.3			260[e]	56	100	26	35		
4/4 1215		64	9.6	101	506	7.6/7.8	2.41[c]		56/2.44		0/0.00	92/1.51		77/2.17			0.2			286[e]	50	121	46	20		
5/7 1130		73	12.0	139	488	7.6/8.1	28/1.40	15/1.22	50/2.18	3.8/0.10	0/0.00	112/1.84	32/0.67	79/2.23	0.3/0.00	0.2/0.01	0.0	12	PO_4 0.40	275[f]	44	131	39	20		
6/5 1115		67	9.6	104	222	7.2/7.0	1.06[c]		22/0.96		0/0.00	55/0.90		30/0.85			0.0			126[e]	48	53	8	30		
7/9 1415		79	6.0	74	531	7.4/7.4	2.42[c]		63/2.74		0/0.00	115/1.88		90/2.54			0.1			301[e]	53	121	27	20		
8/2 0830		72	4.0	46	514	7.2/7.7	2.35[c]		60/2.61		0/0.00	107/1.75		86/2.43			0.1			291[e]	53	117	29	10		
9/5 1305		76	5.4	64	678	7.9/7.9	35/1.75	15/1.23	83/3.61	6.8/0.17	0/0.00	204/3.34	22/0.46	106/2.99	2.9/0.05	0.1/0.01	0.2	9.5	PO_4 1.1	381[f] / 375[g]	53	149	0	30		
10/2 1200		72	8.2	94	806	7.9/7.6	3.58[c]		99/4.31		0/0.00	194/3.18		131/3.70			0.1			456[e]	55	179	20	4		
11/4 1415		61	8.7	88	725	7.5/7.7	3.20[c]		84/3.65		0/0.00	141/2.31		118/3.33			0.1			410[e]	53	160	44	10		
12/5 0955		54	8.2	76	505	7.3/7.8	2.20[c]		55/2.39		0/0.00	93/1.52		79/2.23			0.2			286[e]	52	110	34	4		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR GRAYSON (STA. NO. 26)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[a] b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
1/19 1110	408	47	6.4	58	1,600	7.9	c 6.42		204 / 8.87		0.0 / 0.00	240 / 3.93		253 / 7.14			1.0				56	346	149	2	Median 620. Maximum 7000. Minimum 23.	
2/7 1210	450	52	6.6	59	1,800	7.8	c 7.60		242 / 10.96		0.0 / 0.00	224 / 3.67		292 / 8.24			1.2				59	380	196	20		
3/4 1150	3,000	44	8.7	92	400	7.2	c 2.00		52 / 2.26		0.0 / 0.00	79 / 1.29		53 / 1.50			0.4				53	100	35	40		
4/4 1130	700	67	4.4	52	1,300	7.9	c 5.72		157 / 6.83		0.0 / 0.00	168 / 2.75		220 / 6.21			0.9				54	284	48	70		
5/4 1000	95	71	7.4	9	1,300	7.4	9 / 2.24	33 / 2.71	180 / 7.83	4.0 / 0.10	0.0 / 0.00	172 / 2.82	175 / 3.64	232 / 6.54	2.6 / 0.04	0.2 / 0.01	0.5	17	PO_4 0.55	785	58	275	134	3		
6/7 0830	1,400	67	7.3	79	280	7.2	c 1.24		34 / 1.48		0.0 / 0.00	55 / 0.90		39 / 1.10			0.0				54	62	17	5		
7/5 1310	[illegible]	79	[illegible]	79	[illegible]	8.0	c 4.46		127 / 5.52		0.0 / 0.00	151 / 2.47		158 / 4.46			0.3				56	220	[illegible]	[illegible]		
8/13 1315	400	72	[illegible]	79	[illegible]	7.6	c 4.38		139 / 5.61		0.0 / 0.00	136 / 3.65		161 / 4.54			0.4				56	218	85	20		
9/8 1455	475	74	9.0	111	1,600	7.1	48 / 2.40	24 / 1.97	127 / 5.52	5.6 / 0.14	0.0 / 0.00	191 / 3.13	107 / 2.23	158 / 4.46	1.2 / 0.03	0.3 / 0.02	0.3	23	PO_4 1.1	589	55	220	63	15		
10/18 1115	425	62	6.6	62	1,100	8.0	c 4.99		168 / 7.31		0.0 / 0.00	214 / 3.51		208 / 5.87			0.3				59	240	74	15		
11/	No sample collected.																									
12/10 1645	200	55	7.9	74	1,700	7.9	c 7.42		210 / 9.22		0.0 / 0.00	258 / 4.23		282 / 7.96			0.6				55	371	[illegible]	[illegible]		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT HILLS FERRY BRIDGE (STA. No. 25b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																									Median 180. Maximum 7000. Minimum 6.2	USGS
1/11 1435	460	45	12.0	103	1,300	8.1	[c] 5.44		172 / 7.48		0.0 / 0.00	219 / 3.59	165 / 3.44	198 / 5.59			0.8				58	272	92	20		
2/8 1110	350	52	9.4	86	1,500	7.5	[c] 6.02		200 / 8.70		0.0 / 0.00	195 / 3.20	232 / 4.83	233 / 6.57			1.0				59	301	141	30		
3/1 1100	2,810	59	10.4	90	1,180	8.0	[c] 4.78		158 / 6.87		0.0 / 0.00	173 / 2.84	182 / 3.79	165 / 4.65			1.2				59	239	97	35		
4/5 1150	770	67	10.2	111	1,910	7.8	[c] 7.71		264 / 11.48		0.0 / 0.00	182 / 2.98	322 / 6.70	351 / 9.90			1.6				60	385	36	90		
5/1 1200	397	64	10.4	108	1,160	8.1	48 / 2.40	28 / 2.34	149 / 6.48	3.0 / 0.08	0.0 / 0.00	138 / 2.26	150 / 3.12	194 / 5.47	2.5 / 0.04	0.2 / 0.01	0.2	19	PO_4 0.35	662	57	237	124	20		
6/5 1130	2,040	71	9.8	111	322	7.6	[c] 1.36		40 / 1.74		0.0 / 0.00	49 / 0.80	31 / 0.65	52 / 1.47			0.0				56	68	28	15		
7/3 1030	550	74	8.0	93	762	7.7	[c] 3.11		99 / 4.31		0.0 / 0.00	112 / 1.84	81 / 1.69	124 / 3.50			0.1				58	155	63	20		
8/9 0850	379	75	7.0	83	917	7.8	[c] 4.04		120 / 5.02		0.0 / 0.00	166 / 2.72	98 / 2.04	150 / 4.23			0.3				56	202	66	30		
9/7 1300	308	76	9.6	113	982	8.1	45 / 2.25	23 / 1.87	127 / 5.52	3.2 / 0.08	0.0 / 0.00	166 / 2.72	103 / 2.14	162 / 4.57	3.6 / 0.06	0.2 / 0.01	0.2	24	PO_4 0.40	573	57	206	70	10		
10/4 1230	315	69	9.8	108	849	8.1	[c] 3.59		114 / 4.96		0.0 / 0.00	148 / 2.43	85 / 1.77	143 / 4.03			0.2				58	180	59	20		
11/8 1245	260	61	8.5	86	1,340	8.0	[c] 5.52		184 / 8.00		0.0 / 0.00	223 / 3.65	148 / 3.08	226 / 6.38			0.5				59	276	93	25		
12/6 1215	220	54	9.4	103	1,610	7.9	[c] 6.28		206 / 8.96		0.0 / 0.00	204 / 3.34	196 / 4.08	274 / 7.73			0.6				59	314	147	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT JERSEY POINT (STA. 28b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962	Tidal																									[illegible]
2/15 1015		52			422															272						
3/12 1200		51			318															208						
4/17 1240					175															13[illegible]						
5/15 1400		6[illegible]			154															10[illegible]						
6/19 1220		72			189															12[illegible]						
7/17 1130		72			317															21[illegible]						
8/14 0905		72			504															4[illegible]0						
9/17 1225		70			457															[illegible]						
10/17 1030		61			203															15[illegible]						

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT MAZE ROAD BRIDGE (STA. NO. 26a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1960																										USGS
1/1 1[illegible]	---	48	7.7	67	1,400	7.7	c / 6.12		186 / 8.09		0.0 / 0.00	215 / 3.52		239 / 6.74			0.7				57	306	130	10	Median 230. Maximum 7000. Minimum 23.	
2/7 11[illegible]	---	52	5.3	4[illegible]	1,5[illegible]	7.7	c / 6.68		200 / 8.70		0.0 / 0.00	207 / 3.39		278 / 7.84			0.9				57	334	164	15		
3/[illegible] 1930	---	52	[illegible]	86	287	7.3	c / 1.36		30 / 1.30		0.0 / 0.00	64 / 1.05		32 / 0.90			0.2				49	68	16	40		
4/[illegible] 1100	---	66	7.5	89	704	7.7	c / 3.40		91 / 3.96		0.0 / 0.00	118 / 1.93		122 / 3.44			0.4				54	170	73	35		
5/10 0950	---	71	8.0	91	1,050	7.4	51 / 2.54	27 / 2.20	129 / 5.61	4.8 / 0.12	0.0 / 0.00	166 / 2.72	99 / 2.06	194 / 5.47	4.5 / 0.07	0.2 / 0.01	0.5	23	PO_4 0.80	615	54	237	101	25		
6/7 0900	---	68	6.4	70	305	7.2	c / 1.44		34 / 1.48		0.0 / 0.00	60 / 0.98		46 / 1.30			0.0				51	72	23	25		
7/3 1245	---	76	7.4	88	959	7.6	c / 4.30		117 / 5.09		0.0 / 0.00	154 / 2.52		167 / 4.71			0.2				54	215	89	15		
8/13 1300	---	78	7.5	90	1,030	7.7	c / 4.56		130 / 5.66		0.0 / 0.00	182 / 2.98		196 / 5.53			0.4				55	208	79	25		
9/8 1655	---	72	8.1	93	945	7.5	47 / 2.35	22 / 1.77	112 / 4.87	4.4 / 0.11	0.0 / 0.00	163 / 2.67	67 / 1.39	172 / 4.85	1.2 / 0.02	0.2 / 0.01	0.2	27	PO_4 0.5	533	54	206	72	20		
10/18 1045	---	62	5.5	57	899	7.8	c / 2.94		87 / 3.78		0.0 / 0.00	118 / 1.93		121 / 3.41			0.2				56	147	50	10		
11/	No sample collected.																									
12/10 1610	---	54	8.0	74	527	7.5	c / 2.22		56 / 2.44		0.0 / 0.00	78 / 1.28		86 / 2.43			0.1				52	111	47	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR MENDOTA (STA. NO. 25)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
1/11 1115	26	46	12.7	90	898	8.1	c / 4.09		99 / 4.31		0.0 / 0.00	148 / 2.43		149 / 4.20			0.3				51	205	84	15	Median 62. Maximum 7000. Minimum 0.62	
2/7 1055	24	50	12.7	112	1,260	8.0	c / 5.84		149 / 6.48		0.0 / 0.00	178 / 2.92		218 / 6.15			0.5				53	292	146	10		
3/1 0745	--	46	10.7	90	416	7.7	c / 1.96		45 / 1.96		0.0 / 0.00	88 / 1.44		44 / 1.24			0.2				50	98	26	30		
4/5 0845	346	62	9.6	98	525	7.7	c / 2.43		60 / 2.61		0.0 / 0.00	91 / 1.49		98 / 2.76			1.8				52	122	47	85		
5/1 1510	345	68	9.0	98	414	7.8	23 / 1.15	11 / 0.89	44 / 1.91	2.1 / 0.05	0.0 / 0.00	79 / 1.29	45 / 0.94	56 / 1.58	0.9 / 0.01	0.2 / 0.01	0.0	18	PO_4 0.30	239	48	102	37	30		
6/5 0830	431	68	8.7	96	355	7.5	c / 1.78		38 / 1.65		0.0 / 0.00	70 / 1.15		52 / 1.47			0.0				48	8[illegible]	32	60		
7/3 1430	406	80	7.5	92	289	7.7	c / 1.52		30 / 1.30		0.0 / 0.00	74 / 1.21		35 / 0.99			0.1				46	76	15	35		
8/8 0905	443	73	8.3	95	558	7.8	c / 2.68		62 / 2.70		0.0 / 0.00	113 / 1.85		94 / 2.65			0.1				50	134	41	50		
9/7 0930	328	75	8.9	105	391	8.0	20 / 1.00	10 / 0.84	44 / 1.91	1.9 / 0.05	0.0 / 0.00	94 / 1.54	28 / 0.58	55 / 1.55	0.7 / 0.01	0.2 / 0.01	0.1	18	PO_4 0.20	224	50	92	15	40		
10/5 0900	125	67	9.6	103	730	8.2	c / 3.25		86 / 3.74		0.0 / 0.00	144 / 2.36		122 / 3.44			0.2				54	162	44	20		
11/9 1200	48	64	12.6	130	908	8.2	c / 4.06		112 / 4.87		0.0 / 0.00	152 / 2.49		154 / 4.34			0.4				55	203	73	15		
12/7 1230	131	53	11.8	109	819	7.8	c / 3.66		90 / 3.92		0.0 / 0.00	138 / 2.26		133 / 3.75			0.5				52	183	70	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER ABOVE MERCED RIVER (STA. 30a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
[illegible]		44			1,896	7.9	73	52	276	5.9	0.0	269	288	320	3.7					1,220	60					USBR
[illegible]		54			1,218	8.0	48	34	146	3.1	0.0	151	217	182	2.5					626	55					
[illegible]		70			2,403	7.2	94	64	331	4.3	0.0	195	404	433	3.1					1,572	59					
5/15 1230		64			1,694	7.7	71	42	192	4.3	0.0	171	228	315	1.86					1,056	54					
6/14 1240		64			306	7.4	14	6.8	32	1.6	0.0	38	30	52	1.6					178	5[illegible]					
7/16 1300		79			1,352	7.4	60	34	153	4.3	0.0	175	167	237	4.3					842	53					
8/15 1315		79			1,424	7.7	57	40	164	3.5	0.0	185	174	240	1.2					880	53					
9/17 1120		73			1,507	7.6	63	38	177	4.7	0.0	200	168	264	1.9					934	55					
10/16 1230		60			2,889	7.0	107	86	423	3.9	0.0	224	447	657	1.9					2,040	60					
11/15 1230		59			1,500	8.0	54	50	203	4.7	0.0	232	209	293	2.5					1,064	56					
12/13 1215		53			2,091	7.9	73	50	258	3.1	0.0	194	256	401	2.5					1,258	59					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
SAN JOAQUIN RIVER AT MOSSDALE BRIDGE (STA. 102)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/10 1115		48	9.7	83	1270	7.5 / 7.8	5.72[c]		151 / 6.57		0 / 0.00	191 / 3.13		227 / 6.40			0.4			719[e]	53	286	129	10	Median 230. Maximum 7000. Minimum 5.	[illegible]
2/13 1200		52	6.7	61	356	8.1 / 7.2	1.63[c]		38 / 1.65		0 / 0.00	80 / 1.31		41 / 1.16			0.3			201[e]	50	82	16	75		
3/7 1110		54	8.9	83	516	7.3 / 7.6	2.32[c]		60 / 2.61		0 / 0.00	96 / 1.57		64 / 1.81			0.4			292[e]	53	116	37	35		
4/9 1305		67	10.9	118	724	7.6 / 7.4	3.36[c]		86 / 3.74		0 / 0.00	119 / 1.95		118 / 3.33			0.4			410[e]	53	168	70	15		
5/7 1000		73	11.4	132	357	7.5 / 7.9	21 / 1.05	8.4 / 0.69	35 / 1.52	2.4 / 0.06	0 / 0.00	75 / 1.23	23 / 0.48	56 / 1.58	0.1 / 0.00	0.1 / 0.01	0.0	15	PO_4 0.15	198[f]	46	87	25	15		
6/5 0850		64	9.3	97	230	7.7 / 7.4	1.04[c]		25 / 1.09		0 / 0.00	51 / 0.84		31 / 0.87			0.0			130[e]	51	52	10	30		
7/10 0845		75	11.2	132	979	7.7 / 7.6	4.49[c]		116 / 5.05		0 / 0.00	166 / 2.72		185 / 5.22			0.3			554[e]	53	224	88	30		
8/8 1230		77	14.3	172	997	7.7 / 7.6	4.62[c]		122 / 5.31		0 / 0.00	181 / 2.97		178 / 5.02			0.2			564[e]	53	231	83	15		
9/6 1035		74	10.8	126	904	7.9 / 8.0	50 / 2.50	20 / 1.66	108 / 4.70	3.8 / 0.10	0 / 0.00	174 / 2.85	65 / 1.35	160 / 4.51	1.3 / 0.02	0.1 / 0.01	0.2	24	PO_4 0.15	518[f] / 522[g]	52	208	65	15		
10/8 1235		67	8.9	96	765	7.5 / 7.5	3.60[c]		89 / 3.87		0 / 0.00	166 / 2.72		122 / 3.44			0.1			433[e]	52	180	44	9		
11/14 1330		60	8.3	83	720	7.3 / 7.8	3.19[c]		89 / 3.87		0 / 0.00	132 / 2.16		122 / 3.44			0.1			408[e]	55	159	51	8		
12/10 1425		52	8.8	80	462	7.3 / 7.7	2.00[c]		48 / 2.09		0 / 0.00	81 / 1.33		73 / 2.06			0.1			261[e]	51	100	34	5		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT PATTERSON BRIDGE (STA. NO. 27a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/10 1000	---	46	9.2	84	1,600	7.8	64 / 3.19	44 / 3.65	220 / 9.57	4.0 / 0.10	0.0 / 0.00	252 / 4.13	231 / 4.81	248 / 7.00	5.3 / 0.09	0.5 / 0.03	0.8	17		975	58	342	135	25	Median 7000. Maximum 7000. Minimum 62.	
2/2 1000	---	52	8.5	77	1,820	7.7	c / 7.18		250 / 10.88		0.0 / 0.00	234 / 3.84		299 / 8.43			1.1				60	359	167	20		
3/1 1145	---	48	10.1	88	656	7.3	c / 2.72		83 / 3.61		0.0 / 0.00	112 / 1.84		86 / 2.43			0.5				57	136	44	45		
4/5 1400	---	69	9.5	105	1,080	7.8	c / 4.40		132 / 5.74		0.0 / 0.00	145 / 2.38	162 / 3.37	167 / 4.71			0.8				57	220	101	30		
5/1 1015	---	65	9.8	104	1,340	7.6	57 / 2.84	30 / 2.44	186 / 8.09	4.0 / 0.10	0.0 / 0.00	169 / 2.77	171 / 3.56	238 / 6.71	4.0 / 0.06	0.2 / 0.01	0.5	21	PO_4 0.45	795	60	264	125	25		
6/5 1320	---	66	9.3	99	148	7.6	c / 0.70		15 / 0.65		0.0 / 0.00	31 / 0.51		22 / 0.62			0.0				48	35	10	25		
7/3 0800	---	74	8.1	94	931	7.5	c / 3.80		122 / 5.31		0.0 / 0.00	136 / 2.23		153 / 4.32			0.2				58	190	78	9		
8/9 1125	---	78	5.6	68	940	8.0	c / 4.00		122 / 5.31		0.0 / 0.00	176 / 2.88		151 / 4.26			0.2				57	200	56	25		
9/6 0930	---	72	5.8	67	865	7.7	40 / 2.00	18 / 1.51	114 / 4.96	3.5 / 0.09	0.0 / 0.00	167 / 2.74	86 / 1.79	136 / 3.84	2.2 / 0.04	0.2 / 0.01	0.2	23	PO_4 0.40	505	58	176	39	15		
10/4 1000	---	67	7.7	83	820	8.0	c / 3.49		114 / 4.96		0.0 / 0.00	174 / 2.85		130 / 3.67			0.2			490	59	174	31	15		
11/8 1045	---	60	5.8	58	1,340	8.1	c / 5.40		180 / 7.83		0.0 / 0.00	234 / 3.84		221 / 6.23			0.4				59	270	78	5		
12/6 1115	---	55	7.1	67	1,570	7.8	c / 6.24		208 / 9.05		0.0 / 0.00	210 / 3.44		272 / 7.67			0.7				59	312	140	10		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT PATTERSON WATER COMPANY (STA. 27a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							equivalents per million																			
1962																										
1/15 1200		44			1,508	7.8	64	40	181	5.5	0.0	233	219	248	3.1					968	54					[illegible]
2/14 1245		52			392	6.9	20	9.4	42	2.7	0.0	71	60	45	0.6					286	50					
3/14 1245		54			641	7.9	29	18	72	2.3	0.0	96	103	89	1.2					464	52					
4/16 1230		70			1,338	7.2	58	34	157	2.7	0.0	168	200	213	2.5					856	54					
5/15 1145		64			415	7.5	18	10	42	2.3	0.0	58	49	61	0.62					248	51					
6/14 1130		64			218	7.5	10	5.4	23	1.6	0.0	43	22	32	0.6					132	50					
7/16 1230		78			897	8.0	43	21	101	3.1	0.0	150	108	147	1.9					576	53					
8/15 1230		79			963	7.4	44	23	99	3.1	0.0	167	103	149	1.9					612	51					
9/17 1040		73			1,030	7.0	49	21	123	3.1	0.0	168	107	168	1.9					622	56					
10/16 1150		60			738	7.0	31	21	95	2.0	0.0	116	80	131	3.7					492	56					
11/15 1155		59			1,289	7.4	59	34	164	4.3	0.0	217	164	236	3.7					916	55					
12/13 1145		53			1,681	7.7	65	40	198	3.1	0.0	194	212	294	5.0					1,010	57					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER ABOVE BIFURCATION WITH SALT SLOUGH (STA. 111b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	equivalents per million: Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/15 1325		45			971	8.3	51	27	104	3.9	0.0	170	92	175	0.6					592	48					USBR
2/15 1405		52			153	7.1	16	3.4	11	2.7	0.0	59	15	6.4	2.5					154	29					
3/14 1450		54			259	8.0	20	8.3	20	2.0	0.0	85	19	28	0.6					194	33					
4/16 1410		70			973	7.4	55	21	106	2.7	0.0	168	93	165	0.6					614	50					
5/15 1325		64			1,070	7.8	58	23	115	5.1	0.0	192	89	188	0.62					648	50					
6/14 1330		64			990	7.9	52	22	104	5.1	0.0	201	78	162	1.9					590	48					
7/16 1405		80			762	7.8	45	19	80	3.9	0.0	179	59	121	0.6					472	47					
8/16 1410		80			885	7.9	47	20	91	2.7	0.0	184	69	143	1.9					548	49					
9/17 1230		73			860	7.5	48	20	92	4.7	0.0	199	61	136	1.9					520	49					
10/16 1330		60			1,230	7.7	62	27	157	3.9	0.0	246	89	244	0.6					812	56					
11/15 1320		59			1,032	7.7	44	19	155	3.5	0.0	281	57	192	0.6					684	64					
12/13 1300		53			1,660	8.7	59	22	246	3.1	17	309	90	311	1.9					956	69					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT SAN ANDREAS LANDING (STA. 112b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm g	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million																			
							Mineral constituents in equivalents per million																			
1[illegible]	Tidal																									[illegible]
1/18 1[illegible]		[illegible]			[illegible]	7.[illegible]	22	10	22	1.2	0.0	85	26	21	2.5					1[illegible]	33					
[illegible]/1[illegible] 1[illegible]		[illegible]			1[illegible]	7.1	1[illegible]	[illegible].7	3.1	1.2	0.0	[illegible]	20	12	[illegible]					1[illegible]	[illegible]					
[illegible]/1[illegible] 1[illegible]		[illegible]			1[illegible]1	[illegible]	1[illegible]	[illegible]	[illegible]	0.4	0.[illegible]	[illegible]	1[illegible]	7.1	[illegible]					1[illegible]	[illegible]					
[illegible]/1[illegible] 1[illegible]		[illegible]			1[illegible]	7.[illegible]	1[illegible]	[illegible].3	2.2	0.78	0.0	48	15	2.9	0.0					1[illegible]	[illegible]					
[illegible]/17 1[illegible]		[illegible]			[illegible]	7.[illegible]	10	[illegible]	12	0.8	0.0	5[illegible]	[illegible]	13	0.0					[illegible]1[illegible]	33					
[illegible] 1[illegible]		7[illegible]			[illegible]	[illegible]	11	2.9	9.2	[illegible]	0.0	[illegible]	[illegible]	2.9	0.0					9[illegible]	[illegible]					
[illegible] 1[illegible]		7[illegible]			1[illegible]	[illegible]	15	[illegible]	13	1.0	0.[illegible]	68	15	11	[illegible]					11[illegible]	32					
[illegible]/1 1[illegible]		77			[illegible]	7.[illegible]	12	3.3	19	1.2	0.0	71	13	2[illegible]	0.0					1[illegible]	38					
[illegible] 11[illegible]		7[illegible]			[illegible]	7.[illegible]	2[illegible]	[illegible].5	24	1.[illegible]	0.0	92	13	31	0.0					[illegible]00	[illegible]					
[illegible]/15 1.1		[illegible]			[illegible]	7.1	10	2.8	[illegible].0	1.2	0.0	29	[illegible]	5.7	3.1					[illegible]	[illegible]					
11/1[illegible] 1[illegible]		[illegible]0			1[illegible]	7.7	13	10	15	1.2	0.0	70	13	17	0.[illegible]					[illegible]	31					
12/[illegible] 1[illegible]		[illegible]8			18[illegible]	7.5	13	[illegible].5	14	1.2	0.0	59	14	18	0.0					124	[illegible]					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/11 1535	760	49	11.0	97	1,140	8.0	c 5.19		144 / 6.26		0.0 / 0.00	200 / 3.28		186 / 5.25			0.5				55	260	96	10	Median 620. Maximum 2400. Minimum 23.	
2/8 1305	740	52	8.6	78	1,400	7.5	c 6.07		180 / 7.83		0.0 / 0.00	195 / 3.20		232 / 6.54			0.7				56	304	144	15		
3/1 1245	6,862	49	10.0	58	427	7.8	c 2.04		46 / 2.00		0.0 / 0.00	86 / 1.41		54 / 1.52			0.3				50	102	31	90		
4/5 1500	2,170	68	9.5	103	653	7.6	c 2.96		76 / 3.31		0.0 / 0.00	111 / 1.82		128 / 3.61			0.3				53	148	57	30		
5/1 0835	2,261	63	9.3	96	389	7.6	23 / 1.15	8.9 / 0.73	42 / 1.83	2.1 / 0.05	0.0 / 0.00	76 / 1.25	31 / 0.65	61 / 1.72	1.2 / 0.02	0.1 / 0.01	0.1	18	ABS 0.0 PO4 0.40	224	49	94	32	20		
6/5 1415	5,774	66	9.7	103	169	7.4	c 0.84		17 / 0.74		0.0 / 0.00	40 / 0.66		23 / 0.65			0.0				47	42	9	15		
7/3 0800	1,351	73	8.0	93	802	7.8	c 3.76		94 / 4.09		0.0 / 0.00	146 / 2.39		135 / 3.81			0.2				52	188	68	20		
8/10 1100	500	75	8.9	105	962	7.5	c 4.48		119 / 5.18		0.0 / 0.00	180 / 2.95		178 / 5.02			0.2				54	224	76	20		
9/6 0800	700	66	6.7	72	918	7.8	47 / 2.35	23 / 1.89	106 / 4.61	4.2 / 0.11	0.0 / 0.00	176 / 2.88	63 / 1.31	164 / 4.63	4.8 / 0.08	0.1 / 0.01	0.0	27	ABS 0.0, As 0.01, PO4 0.40	526	51	212	68	35		
10/4 0915	1,000	67	7.2	78	912	8.0	c 4.12		120 / 5.22		0.0 / 0.00	181 / 2.97		161 / 4.54			0.2				56	206	58	15		
11/8 0930	1,250	60	8.1	81	727	7.8	c 3.20		88 / 3.83		0.0 / 0.00	132 / 2.16		122 / 3.44			0.2				54	160	52	10		
12/6 1030	2,200	55	8.7	82	399	7.6	c 1.68		42 / 1.83		0.0 / 0.00	68 / 1.11		64 / 1.81			0.2				52	84	28	15		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm[f]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/1-10					1,260	7.8	63 / 3.14	31 / 2.54	152 / 6.61	4.2 / 0.11	0.0 / 0.00	192 / 3.15	118 / 2.46	225 / 6.35	6.1 / 0.10	0.3 / 0.02	0.4	34	Fe 0.06	750	53	284	127			
1/11-20					1,220	8.1	57 / 2.84	30 / 2.44	156 / 6.79	4.8 / 0.12	0.0 / 0.00	208 / 3.41	133 / 2.77	204 / 5.75	5.4 / 0.09	0.3 / 0.02	0.6	26	Fe 0.06	736	56	264	93			
1/21-31					1,260	7.8	60 / 2.99	31 / 2.53	157 / 6.83	5.4 / 0.14	0.0 / 0.00	198 / 3.25	139 / 2.89	210 / 5.92	5.1 / 0.08	0.3 / 0.02	0.6	28	Fe 0.06	767	59	276	114			
2/1-9					1,380	8.2	68 / 3.39	31 / 2.57	172 / 7.48	5.3 / 0.14	0.0 / 0.00	199 / 3.26	169 / 3.52	243 / 6.86	3.5 / 0.06	0.2 / 0.01	0.7	26		840	55	298	135			
2/10-12					799	7.2	38 / 1.90	19 / 1.58	92 / 4.00	7.0 / 0.18	0.0 / 0.00	135 / 2.21	96 / 2.00	126 / 3.55	4.5 / 0.07	0.3 / 0.02	0.6	20	Fe 0.09	500	52	174	63			
2/13-21					260	7.1	16 / 0.80	5.8 / 0.48	24 / 1.04	3.8 / 0.10	0.0 / 0.00	68 / 1.11	25 / 0.52	29 / 0.82	2.6 / 0.04	0.1 / 0.01	0.2	17	Fe 0.36	188	43	64	7			
2/22-28					339	7.4	20 / 1.00	6.8 / 0.56	36 / 1.57	2.6 / 0.07	0.0 / 0.00	76 / 1.25	37 / 0.77	44 / 1.24	2.3 / 0.04	0.1 / 0.01	0.3	16	Fe 0.19	227	49	78	16			
3/1-8					459	7.5	23 / 1.15	11 / 0.93	51 / 2.22	2.5 / 0.06	0.0 / 0.00	91 / 1.49	57 / 1.19	58 / 1.64	2.2 / 0.04	0.2 / 0.01	0.3	19	Fe 0.08	286	51	104	29			
3/9-12					271	7.2	15 / 0.75	7.8 / 0.64	28 / 1.22	2.0 / 0.05	0.0 / 0.00	65 / 1.07	31 / 0.65	30 / 0.85	2.3 / 0.04	0.3 / 0.02	0.0	17	Fe 0.02	184	46	69	16			
3/13-20					367	7.3	20 / 1.00	9.6 / 0.79	38 / 1.65	1.8 / 0.05	0.0 / 0.00	74 / 1.21	44 / 0.92	45 / 1.27	1.6 / 0.03	0.2 / 0.01	0.2	19	Fe 0.06	228	47	90	29			
3/21-31					468	7.6	23 / 1.15	13 / 1.03	50 / 2.18	2.2 / 0.06	0.0 / 0.00	83 / 1.36	59 / 1.23	63 / 1.78	1.4 / 0.02	0.2 / 0.01	0.2	18	Fe 0.03	279	50	109	41			
4/1-6					562	7.5	28 / 1.40	14 / 1.18	64 / 2.78	2.8 / 0.07	0.0 / 0.00	118 / 1.93	68 / 1.42	79 / 2.23	2.1 / 0.03	0.2 / 0.01	0.2	18		337	64	129	32			
4/7-14					718	7.1	34 / 1.70	17 / 1.38	86 / 3.74	3.4 / 0.09	0.0 / 0.00	116 / 1.90	79 / 1.64	109 / 3.07	3.9 / 0.06	0.2 / 0.01	0.3	19	Fe 0.01	421	54	154	59			
4/15-18					872	7.1	45 / 2.25	21 / 1.74	97 / 4.22	4.1 / 0.10	0.0 / 0.00	142 / 2.33	88 / 1.85	140 / 3.95	4.8 / 0.08	0.2 / 0.01	0.4	21	Fe 0.13	504	51	200	84			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27 continued)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm[f]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
4/14-20					564	7.3	30 / 1.50	15 / 1.21	64 / 2.78	3.0 / 0.08	0.0 / 0.00	107 / 1.75	49 / 1.02	89 / 2.51	4.2 / 0.07	--- / ---	0.1	19	Fe 0.09	326	50	136	48			
4/21-30					418	7.3	23 / 1.15	9.2 / 0.76	46 / 2.00	2.3 / 0.06	0.0 / 0.00	85 / 1.39	29 / 0.60	63 / 1.78	3.4 / 0.05	0.0 / 0.00	0.1	19	Fe 0.01	238	50	96	26			
5/1-5					434	7.4	27 / 1.35	2.6 / 0.79	48 / 2.09	2.5 / 0.06	0.0 / 0.00	105 / 1.72	32 / 0.67	70 / 1.97	2.7 / 0.04	0.1 / 0.01	0.1	20		262	49	107	21			
5/6-9					324	7.4	20 / 1.00	7.1 / 0.58	34 / 1.48	2.0 / 0.05	0.0 / 0.00	50 / 0.82	27 / 0.56	49 / 1.38	2.8 / 0.05	0.1 / 0.01	0.1	18		186	48	79	38			
5/10					419	7.2	24 / 1.20	7.8 / 0.64	50 / 2.18	2.4 / 0.06	0.0 / 0.00	80 / 1.31	41 / 0.85	62 / 1.75	2.7 / 0.04	--- / ---	0.1	17		---	53	92	26			
5/11-13					162	7.1	13 / 0.62	2.3 / 0.19	15 / 0.65	1.6 / 0.04	0.0 / 0.00	41 / 0.67	12 / 0.25	21 / 0.59	2.5 / 0.04	0.2 / 0.01	0.0	14	Fe 0.07	94	42	42	8			
5/14-16					298	7.3	20 / 1.00	5.1 / 0.42	34 / 1.48	2.2 / 0.06	0.0 / 0.00	65 / 1.07	26 / 0.54	44 / 1.24	2.8 / 0.05	0.1 / 0.01	0.1	17		173	50	71	18			
5/17-31					541	7.5	33 / 1.65	11 / 0.93	62 / 2.70	2.8 / 0.07	0.0 / 0.00	112 / 1.84	46 / 0.96	84 / 2.37	3.2 / 0.05	0.2 / 0.01	0.2	21		307	50	129	37			
6/1-2					732	8.1	38 / 1.90	18 / 1.48	89 / 3.87	3.4 / 0.09	0.0 / 0.00	139 / 2.28	62 / 1.29	124 / 3.50	3.3 / 0.05	--- / ---	0.0	26		---	53	169	55			
6/3-14					187	7.6	11 / 0.55	4.3 / 0.35	18 / 0.78	1.4 / 0.04	0.0 / 0.00	45 / 0.74	12 / 0.25	26 / 0.73	1.3 / 0.02	0.1 / 0.01	0.0	15	Fe 0.01	116	45	45	8			
6/15-25					277	7.8	17 / 0.85	6.0 / 0.49	32 / 1.39	1.7 / 0.04	0.0 / 0.00	65 / 1.07	22 / 0.46	40 / 1.13	1.3 / 0.02	0.1 / 0.01	0.0	17	Fe 0.01	160	50	67	14			
6/26-30					497	8.1	27 / 1.35	12 / 0.99	57 / 2.48	2.8 / 0.07	0.0 / 0.00	100 / 1.64	38 / 0.79	80 / 2.26	1.8 / 0.03	0.1 / 0.01	0.0	23	Fe 0.03	293	51	117	35			
7/1-5					785	7.7	42 / 2.10	19 / 1.58	90 / 3.92	3.4 / 0.09	0.0 / 0.00	145 / 2.38	61 / 1.27	132 / 3.72	3.5 / 0.06	0.1 / 0.01	0.1	26		477	51	184	65			
7/6-16					934	7.5	50 / 2.50	23 / 1.92	105 / 4.57	4.2 / 0.11	0.0 / 0.00	173 / 2.84	72 / 1.50	164 / 4.63	3.9 / 0.06	0.1 / 0.01	0.2	28		566	50	221	79			

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27 continued)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm[f]	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
7/17-31					1,030	7.5	55 / 2.74	24 / 1.96	115 / 5.00	4.8 / 0.12	0.0 / 0.00	162 / 2.66	72 / 1.50	190 / 5.36	3.9 / 0.06	0.1 / 0.01	0.2	28		621	51	235	102			
8/1-10					1,010	7.6	54 / 2.69	23 / 1.93	124 / 5.39	4.8 / 0.12	0.0 / 0.00	180 / 2.95	69 / 1.44	187 / 5.28	5.7 / 0.09	0.1 / 0.01	0.1	29		615	53	231	83			
8/11-20					991	7.5	52 / 2.59	24 / 1.95	119 / 5.18	5.0 / 0.13	0.0 / 0.00	180 / 2.95	63 / 1.31	186 / 5.25	6.6 / 0.11	0.1 / 0.01	0.0	30		616	53	227	79			
8/21-31					994	7.5	52 / 2.59	24 / 1.95	120 / 5.22	5.0 / 0.13	0.0 / 0.00	186 / 3.05	68 / 1.42	185 / 5.22	5.6 / 0.09	0.1 / 0.01	0.1	31	Fe 0.04	610	53	227	74			
9/1-10					877	7.9	45 / 2.25	21 / 1.72	98 / 4.26	4.4 / 0.11	0.0 / 0.00	174 / 2.85	61 / 1.27	152 / 4.29	2.7 / 0.04	0.2 / 0.01	0.1	30		517	51	198	55			
9/11-20					919	8.0	49 / 2.45	21 / 1.75	108 / 4.70	4.4 / 0.11	0.0 / 0.00	183 / 3.00	63 / 1.31	160 / 4.51	3.3 / 0.05	0.3 / 0.02	0.2	32		553	52	210	60			
9/21-30					886	7.9	46 / 2.30	21 / 1.70	99 / 4.31	4.4 / 0.11	0.0 / 0.00	179 / 2.93	63 / 1.31	151 / 4.26	4.0 / 0.06	0.2 / 0.01	0.1	32		535	51	200	53			
10/1-13					876	7.4	46 / 2.30	21 / 1.70	102 / 4.44	4.2 / 0.11	0.0 / 0.00	176 / 2.88	54 / 1.12	148 / 4.18	4.6 / 0.07	0.2 / 0.01	0.3	32	Fe 0.02	500	52	200	56			
10/14-19					574	7.6	30 / 1.50	14 / 1.18	69 / 3.00	3.2 / 0.08	0.0 / 0.00	116 / 1.90	43 / 0.07	94 / 2.65	4.3 / 0.90	0.2 / 0.01	0.2	25	Fe 0.03	338	52	134	39			
10/20-31					756	7.5	41 / 2.05	17 / 1.38	94 / 4.09	3.2 / 0.08	0.0 / 0.00	136 / 2.23	61 / 1.27	132 / 3.72	4.2 / 0.07	0.2 / 0.01	0.1	25	Fe 0.02	438	54	171	59			
11/1-12					704	7.3	37 / 1.85	15 / 1.23	82 / 3.57	3.2 / 0.08	0.0 / 0.00	134 / 2.20	40 / 0.85	120 / 3.39	3.6 / 0.06	0.0 / 0.00	0.2	24	Fe 0.06	391	53	154	44			
11/13-25					671	7.3	34 / 1.70	15 / 1.26	77 / 3.35	2.8 / 0.07	0.0 / 0.00	124 / 2.03	54 / 1.12	110 / 3.10	2.8 / 0.05	0.0 / 0.00	0.3	24	Fe 0.01	381	53	148	46			
11/26-30					450	7.2	25 / 1.25	9.8 / 0.81	50 / 2.18	2.2 / 0.06	0.0 / 0.00	82 / 1.34	33 / 0.69	73 / 2.06	2.3 / 0.04	0.0 / 0.00	0.1	20		255	51	103	36			
12/1-7					412	7.4	24 / 1.20	6.8 / 0.56	42 / 1.83	2.2 / 0.06	0.0 / 0.00	74 / 1.21	31 / 0.65	66 / 1.86	3.4 / 0.05	0.2 / 0.01	0.1	16		228	50	88	27			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27 continued)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total[f] dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
12/8-[illegible]					392	7.6	20 / 1.00	8.5 / 0.70	38 / 1.65	2.0 / 0.05	0.0 / 0.00	68 / 1.11	27 / 0.56	64 / 1.81	3.2 / 0.05	0.1 / 0.01	0.1	16		212	49	85	29			
12/17-31					460	7.8	21 / 1.05	11 / 0.91	49 / 2.13	2.5 / 0.06	0.0 / 0.00	86 / 1.41	40 / 0.83	71 / 2.00	3.2 / 0.05	0.3 / 0.02	0.2	19	Fe 0.01	259	51	98	27			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+5}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT WEST STANISLAUS I. D. INTAKE (STA. 27b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/16 1030		44			1,580	7.7	66	51	194	4.7	0.0	252	296	265	5.0					1,026	53					[illegible]
2/15 1100		52			534	7.2	26	13	61	3.9	0.0	95	82	64	[illegible].5					[illegible]	52					
3/14 1200		54			576	8.1	26	16	66	2.0	0.0	102	87	75	1.[illegible]					[illegible]	5[illegible]					
4/16 1150		68			1,303	7.2	55	36	150	2.0	0.0	163	192	214	3.1					[illegible]	53					
5/16 1030		60			473	7.6	23	12	47	5.1	0.0	77	54	68	1.24					[illegible]	48					
6/15 1015		65			254	7.4	12	7.3	26	1.6	0.0	45	24	36	0.6					154	48					
7/16 1155		76			1,084	7.8	44	36	118	3.1	0.0	184	136	178	3.1					[illegible]	49					
8/16 1020		76			1,080	7.5	50	31	112	2.7	0.0	187	122	171	2.5					684	49					
9/18 0800		70			1,104	7.6	49	30	123	3.1	0.0	188	120	175	3.7					676	52					
10/16 1120		60			882	7.9	35	28	112	2.0	0.0	147	106	153	3.7					502	54					
11/16 1030		58			1,352	8.0	60	40	169	3.9	0.0	244	170	241	3.7					908	53					
12/13 1110		53			1,696	7.9	69	46	198	3.1	0.0	227	226	294	3.1					1,044	54					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

SAN JOAQUIN RIVER AT WHITEHOUSE (STA. 24b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1960																										
[illegible]		51			197															172						[illegible]
1[illegible] 0910		56			191															158						
3/31 0830		62			190	7.3	14	4.8	14	2.0	0.0	71	12	12	0.6					106	35					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STANISLAUS RIVER NEAR MOUTH (STA. NO. 29)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]																										USGS
1/11 [illegible]	47	[illegible]	12.[illegible]	1[illegible]	260	7.7	c / 2.15		1[illegible] / [illegible]		0.0 / 0.00	144 / 2.36		8.6 / 0.24			0.0				23	108	0	3	Median 62. Maximum 7000. Minimum 0.62	
2/[illegible] [illegible]	[illegible]	[illegible]	10.4	[illegible]	[illegible]	8.2	c / 2.10		1[illegible] / 0.6[illegible]		0.0 / 0.00	140 / 2.30		8.5 / 0.24			0.0				23	108	0	10		
3/1 [illegible]	1,[illegible]3	[illegible]	10.7	[illegible]	[illegible]7	7.4	c / 0.84		2.8 / 0.12		0.0 / 0.00	46 / 0.7[illegible]		2.0 / 0.06			0.0				12	42	4	20		
4/[illegible] [illegible]	2[illegible]	[illegible]	[illegible].0	[illegible]	1[illegible]	7.7	c / 1.[illegible]		8.8 / 0.38		0.0 / 0.00	68 / 1.11		8.1 / 0.23			0.0				20	76	4	15		
[illegible]/1 [illegible]	1,0[illegible]	[illegible]	[illegible].4	[illegible]	7[illegible]	7.[illegible]	7.4 / 0.37	2.6 / [illegible]	2.9 / 0.13	1.0 / 0.03	0.0 / 0.00	37 / 0.61	3.0 / 0.06	1.5 / 0.04	0.8 / 0.01	0.2 / 0.01	0.0	11	ABS 0.0; PO_4 0.25	48	18	29	0	--		
[illegible] [illegible]	3,1[illegible]	[illegible]	[illegible]	1[illegible]	44	7.1	c / 0.32		2.1 / 0.09		0.0 / 0.00	20 / 0.33		2.0 / 0.06			0.0				22	16	0	20		
7/2 [illegible]	1[illegible]	71	7.[illegible]	[illegible]	2[illegible]	8.0	c / 1.60		12 / 0.52		0.0 / 0.00	107 / 1.75		7.0 / 0.20			0.0				25	80	0	6		
8/10 [illegible]	[illegible]	7[illegible]	[illegible].6	10[illegible]	276	7.7	c / 2.[illegible]		16 / 0.70		0.0 / 0.00	152 / 2.49		8.5 / 0.24			0.1				24	110	0	4		
9/4 [illegible]	[illegible]	6[illegible]	7.[illegible]	[illegible]	2[illegible]	7.9	23 / 1.15	9.4 / 0.77	15 / 0.6[illegible]	2.2 / 0.0[illegible]	0.0 / 0.00	138 / 2.26	8.8 / 0.18	7.0 / 0.20	2.4 / 0.04	0.1 / 0.01	0.0	29	ABS 0.00; As 0.00; PO_4 0.20	165	25	96	0	40		
10/[illegible] [illegible]	1[illegible]	[illegible]	7.[illegible]	[illegible]	24[illegible]	[illegible]	c / 1.[illegible]		16 / 0.70		0.0 / 0.00	132 / 2.16		11 / 0.31			0.1				27	90	0	30		
11/[illegible] [illegible]	[illegible]	[illegible]	[illegible].1	[illegible]	1[illegible]	[illegible]	c / 1.60		11 / 0.48		0.0 / 0.00	110 / 1.80		4.8 / 0.14			0.0				23	80	0	3		
12/6 [illegible]	[illegible]	[illegible]	[illegible].[illegible]	[illegible]	[illegible]7	7.9	c / 2.00		14 / 0.61		0.0 / 0.00	131 / 2.15		7.5 / 0.21			0.0				23	100	0	9		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STANISLAUS RIVER BELOW TULLOCH DAM (STA. NO. 29a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/10 1300	544	48	10.8	94	76	7.5	0.65[c]		2.3 / 0.10		0.0 / 0.00	40 / 0.66		1.1 / 0.03			0.0				13	32	0	2	Median 4.2 Maximum 620. Minimum 0.045	
2/8 1535	---	48	11.8	102	88	7.8	0.74[c]		2.8 / 0.12		0.0 / 0.00	40 / 0.66		1.0 / 0.03			0.0				14	37	4	5		
3/7 1400	900	47	10.0	86	91	7.4	0.78[c]		2.9 / 0.13		0.0 / 0.00	41 / 0.67		2.2 / 0.06			0.1				14	39	5	25		
4/11 1030	---	48	9.8	85	85	7.6	0.74[c]		3.5 / 0.15		0.0 / 0.00	42 / 0.69		2.5 / 0.07			0.1				17	37	3	5		
5/10 1300	4,400	59	10.3	102	47	7.1	4.4 / 0.22	1.5 / 0.12	2.0 / 0.09	0.8 / 0.02	0.0 / 0.00	25 / 0.41	0.4 / 0.01	0.6 / 0.02	0.0 / 0.00	0.1 / 0.01	0.0	11	PO_4 0.05	33	20	17	0	5		
6/8 1000	4,500	60	9.5	95	36	7.3	0.28[c]		1.8 / 0.08		0.0 / 0.00	18 / 0.30		3.0 / 0.08			0.0				22	14	0	5		
7/13 1040	---	63	8.0	83	38	6.9	0.28[c]		2.2 / 0.10		0.0 / 0.00	19 / 0.31		1.7 / 0.05			0.0				26	14	0	3		
8/7 1240	---	67	7.2	78	42	7.4	0.31[c]		2.1 / 0.09		0.0 / 0.00	23 / 0.38		1.0 / 0.03			0.0				22	16	0	1		
9/4 1335	---	73	6.9	79	52	7.1	6.3 / 0.31	1.1 / 0.09	2.1 / 0.09	0.6 / 0.02	0.0 / 0.00	25 / 0.41	0.4 / 0.01	0.6 / 0.02	0.3 / 0.05	0.0 / 0.00	0.0	12	PO_4 0.00	35	18	20	0	3		
10/5 1020	---	63	8.3	86	56	7.1	0.44[c]		2.5 / 0.11		0.0 / 0.00	28 / 0.46		3.6 / 0.10			0.0				20	22	0	20		
11/9 1215	145	60	8.2	82	54	7.0	0.44[c]		1.8 / 0.08		0.0 / 0.00	28 / 0.46		1.2 / 0.03			0.0				15	22	0	4		
12/7 1025	---	50	9.3	83	78	7.3	0.64[c]		2.7 / 0.12		0.0 / 0.00	35 / 0.57		1.0 / 0.03			0.0				16	32	3	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
STOCKTON SHIP CHANNEL ON RINDGE ISLAND (STA. 100)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962	Tidal																									
1/10 1230		47	7.0	59	944	7.1/7.7	4.72[c]		97/4.22		0/0.00	126/2.07		154/4.34			0.2			525[e]	47	236	133	60	Median <20. Maximum >7000. Minimum 6.2	USGS
2/14 1110		54	8.4	78	501	7.1/7.5	2.40[c]		51/2.22		0/0.00	81/1.33		66/1.86			0.2			279[e]	48	120	54	120		
3/7 1330		53	9.0	82	394	7.5/7.9	1.98[c]		40/1.74		0/0.00	88/1.44		44/1.24			0.3			219[e]	47	99	27	70		
4/5 1135		64	8.9	93	513	7.2/7.5	2.30[c]		54/2.35		0/0.00	84/1.38		75/2.12			0.3			285[e]	51	115	46	50		
5/9 1230		68	9.1	100	458	7.0/7.6	27/1.35	11/0.91	46/2.00	3.1/0.08	0/0.00	91/1.49	37/0.77	69/1.95	0.6/0.01	0.3/0.02	0.2	3.7	PO_4 0.15	243[f]	46	113	38	35		
6/11 0840		71	7.6	86	286	7.2/7.5	1.30[c]		30/1.30		0/0.00	58/0.95		42/1.18			0.0			159[e]	50	65	17	55		
7/9 1530		79	8.1	99	315	7.4/7.7	1.60[c]		34/1.48		0/0.00	77/1.26		48/1.35			0.0			175[e]	48	80	17	150		
8/1 1305		78	6.8	83	271	7.2/7.6	1.57[c]		27/1.17		0/0.00	84/1.38		31/0.87			0.0			151[e]	43	78	9	35		
9/4 1330		78	7.5	91	340	7.3/7.7	19/0.95	10/0.83	36/1.57	2.1/0.05	0/0.00	94/1.54	21/0.44	49/1.38	1.7/0.03	0.1/0.01	0.1	16	PO_4 0.35	201[f]/212[g]	46	89	12	50		
10/8 0955		69	7.1	79	765	7.5/7.5	3.40[c]		94/4.09		0/0.00	176/2.88		129/3.64			0.2			425[e]	55	170	26	9		
11/14 1210		62	8.4	86	692	7.5/7.7	3.09[c]		83/3.61		0/0.00	145/2.38		116/3.27			0.0			385[e]	54	154	35	40		
12/4 1300		55	9.6	90	723	7.5/7.8	3.15[c]		89/3.87		0/0.00	135/2.21		121/3.41			0.2			402[e]	55	158	47	6		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE [illegible]-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STONY CREEK AT BLACK BUTTE DAM SITE (STA. 13c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.1/8.3	[illegible]/[illegible]		[illegible]/[illegible]		[illegible]/[illegible]	185/3.03		34/[illegible]			[illegible]		Tot. Alk. 141		[illegible]	[illegible]	[illegible]	[illegible]		USGS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.8/7.8	[illegible]/2.47		16/0.70		[illegible]/[illegible]	120/1.97		26/0.73			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/8.1	[illegible]/2.87		18/0.78		0/0.00	142/2.33		26/0.73			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.1/8.3	[illegible]/1.72		11/0.48		[illegible]/[illegible]	110/1.80		12/0.34			[illegible]		Tot. Alk. 117		[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 17 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	/8.3	[illegible]/1.30	11/0.88	14/0.61	0.[illegible]/0.02	2/0.07	120/1.97	1.[illegible]/0.27	16/0.45	[illegible]/0.00	0.1/0.01	[illegible]	12	PO_4 0.00 Tot. Alk. 124	154[f]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible] 14 [illegible]	90	73	[illegible]	108	[illegible]	8.2/8.2	[illegible]/2.30[c]		13/0.57		0/0.00	134/2.20		15/0.42			[illegible]				[illegible]	115[e]	[illegible]	[illegible]		
7/20 [illegible]	85	75	7.9	92	286	8.1/8.0	[illegible]/2.40[c]		14/0.61		0/0.00	148/2.43		14/0.34			0.2				23	12	[illegible]	[illegible]		
8/21 0845	159	76	7.7	91	302	8.2/8.1	[illegible]/2.08[c]		15/0.65		0/0.00	162/2.66		14/0.39			0.2				2	134	1	[illegible]		
9/20 0920	60	69	8.8	97	316	8.2/8.3	31/1.55	14/1.13	16/0.70	0.3/0.02	5/0.17	162/2.66	15/0.31	13/0.37	1.1/0.02	0.0/0.00	0.3	12	PO_4 0.05 Tot. Alk. 172	188[f] 208[e]	21	134	[illegible]	3[illegible]		
10/18 0940	60	60	10.0	100	329	8.0/8.0	[illegible]/2.70[c]		16/0.70		0/0.00	147/2.41		22/0.62			0.2				21	135	14	35		
11/28 1045	75	51	10.7	96	317	7.7/7.6	[illegible]/2.48[c]		16/0.70		0/0.00	121/1.98		28/0.79			[illegible]				22	124	25	40		
12/19 1105	400	52	11.4	104	387	7.6/8.3	[illegible]/2.81[c]		23/1.00		2/0.07	137/2.25		43/1.21			0.1		Tot. Alk. 141		26	141	25	35		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE P-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

STONY CREEK NEAR HAMILTON CITY (STA. 13a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in ppm / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
11	DRY																								Maximum	USGS
																									Minimum	
																									Median	
																			Tot. Alk. 118							
																			PO4 0.00 As 0.00 ABS 0.0 Tot.Alk.	17 f						
	DRY																									
0805																										
8/21	DRY																									
9/20 0850	DRY																									
10/18 0830																	0.1									
11/28 0935	DRY																									
12/19	274	51	11.2	100	393	7.5			26		4	140		43			0.1		Tot. Alk. 147							

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

THOMES CREEK NEAR MOUTH (STA. 95b)

Date and time sampled P.S.T.	Discharge in cfs Est. by [illegible]	Temp. in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/[illegible]	[illegible]/[illegible]		[illegible]/[illegible]		0/0.00	[illegible]/[illegible]		[illegible]/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	93	[illegible]	[illegible]	147	8.2/7.[illegible]	[illegible]/[illegible]c		[illegible]/[illegible]		0/0.00	76/1.25		[illegible]/[illegible]			[illegible]				14	[illegible]				
[illegible]	[illegible]	67	11.3	[illegible]	273	7.[illegible]/[illegible]	[illegible]/[illegible]c		7.1/0.31		0/0.00	142/2.33		[illegible]/0.12			0.2				11	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.6/7.8	[illegible]/1.1[illegible]		2.6/0.11		0/0.00	[illegible]/1.37		1.00/[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	100	[illegible]	8.1/8.2	20/1.1[illegible]	[illegible]/0.34	4.6/0.20	[illegible]/0.02	[illegible]/0.0	68/1.44	[illegible]/0.21	[illegible]/0.10	[illegible]/[illegible]	[illegible]/.1	[illegible]	10	PO_4 [illegible]	[illegible]	11	[illegible]		[illegible]		
[illegible]	15	71	[illegible]	[illegible]	241	7.[illegible]/[illegible]	[illegible]/2.3[illegible]c		[illegible]/0.29		0/0.00	134/2.20		4.5/0.13			[illegible]				1[illegible]	11		[illegible]		
[illegible]	2.5	73	10.[illegible]	12[illegible]	2[illegible]	7.4/[illegible]	[illegible]/2.[illegible]c		[illegible]/0.2[illegible]		[illegible]/0.1[illegible]	13[illegible]/2.1[illegible]		5.[illegible]/.15			[illegible]		Tot. Alk. 139		1[illegible]	1[illegible]	14	[illegible]		
[illegible]	1.[illegible]	79	9.9	121	203	7.3/7.9	[illegible]/2.7[illegible]c		7.1/0.31		[illegible]/0.00	154/2.52		7.[illegible]/0.20			0.1				1	1[illegible]	10	[illegible]		
9/11 [illegible]	DRY																									
10/1 [illegible]30	DRY																									
11/1 1[illegible]30	3.[illegible]	68	8.8	96	254	7.4/7.[illegible]	[illegible]/2.33c		[illegible]/0.27		0/0.00	134/2.20		5.6/0.16			[illegible]				1[illegible]	11[illegible]	[illegible]			
12/10 1[illegible]45	10.[illegible]	51	11.1	99	176	7.5/7.[illegible]	[illegible]/1.63c		4.0/0.17		0/0.00	97/1.59		4.0/0.11			[illegible]				[illegible]	[illegible]	2	1.[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

THOMES CREEK NEAR PASKENTA (STA. 13d)

Date and time sampled P.S.T. 1962	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1/11 1000	72	38	13.0	97	171	7.5 / 7.9	— / 1.54[c]		4.7 / 0.20		0 / 0.00	82 / 1.34		4.6 / 0.13			0.1				11	77	10	2		USGS
2/14 1340	622	43	11.9	96	148	7.5 / 7.7	— / 1.36[c]		4.0 / 0.17		0 / 0.00	74 / 1.21	7.0 / 0.15	2.8 / 0.08			0.0				11	68	7	[illegible]		
3/14 1535	200	49	10.9	95	243	7.9 / 8.2	— / 2.36[c]		5.9 / 0.26		0 / 0.00	122 / 2.00		5.1 / 0.14			0.0				10	118	1[illegible]	25		
4/12 1030	775	51	10.4	93	98	7.5 / 7.9	— / 0.88[c]		2.7 / 0.12		0 / 0.00	50 / 0.82		4.6 / 0.13			0.1				12	44	[illegible]	5		
5/17 1130	163	61	9.5	96	154	— / 8.0	20 / 1.00	4.9 / 0.40	4.1 / 0.18	0.5 / 0.01	0 / 0.00	78 / 1.28	11 / 0.23	2.8 / 0.08	0.0 / 0.00	0.1 / 0.01	0.0	11	PO_4 0.00	[illegible][f]	11	[illegible]	6	3		
6/19 1200	61	79	8.0	98	175	8.2 / 8.3	— / 1.62[c]		4.9 / 0.21		2 / 0.07	85 / 1.39		3.5 / 0.10			0.0		Tot. Alk. 89		11	81	[illegible]	2		
7/18 [illegible]	10	78	8.6	104	271	8.3 / 8.2	— / 2.35[c]		10 / 0.44		0 / 0.00	120 / 1.97		14 / 0.39			0.1				1[illegible]	[illegible]	[illegible]	1		
8/21 [illegible]	5.1	75	7.[illegible]	82	302	8.1 / 8.2	— / 3.42[c]		15 / 0.65		0 / 0.00	180 / 2.95		25 / 0.71			0.1				1[illegible]	1[illegible]	[illegible]	[illegible]		
9/20 1300	1.8	70	8.0	99	414	8.0 / 8.3	49 / 2.45	14 / 1.13	18 / 0.78	1.3 / 0.03	8 / 0.27	154 / 2.52	29 / 0.60	36 / 1.02	1.3 / 0.02	0.1 / 0.01	0.2	11	PO_4 0.00 Tot. Alk. 170	[illegible][f] [illegible][f]	1[illegible]	17[illegible]	4[illegible]	[illegible]		
10/1[illegible] 1045	[illegible]	52	10.[illegible]	99	140	7.5 / 7.8	— / 1.24[c]		4.5 / 0.20		0 / 0.00	73 / 1.20		4.2 / 0.12			0.1				[illegible]	[illegible]	[illegible]	[illegible]		
11/28 1105	[illegible]	45	11.[illegible]	98	119	7.5 / 7.7	— / 1.09[c]		3.5 / 0.15		0 / 0.00	61 / 1.00		3.8 / 0.11			0.0				[illegible]	[illegible]	3	[illegible]		
12/1[illegible] 1200	[illegible]	46	11.7	[illegible]	135	7.8 / 8.[illegible]	— / 1.24[c]		3.6 / 0.16		0 / 0.00	74 / 1.21		2.2 / 0.06			0.[illegible]				11	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE R-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

TULE RIVER BELOW SUCCESS DAM (STA. NO. 91)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																									Median 23. Maximum 7000. Minimum 0.06	USGS
1/9 1215	12	50	15.2	135	455	8.4	3.76[c]		29 / 1.26		4 / 0.13	246 / 4.03		24 / 0.68			0.2				25	188	0	2		
2/5 0950	60	49	11.4	100	365	8.1	2.92[c]		23 / 1.00		0.0 / 0.00	200 / 3.28		14 / 0.39			0.2				26	146	0	9		
3/5 1355	--	48	1[illegible].9	95	276	8.1	2.14[c]		17 / 0.74		0.0 / 0.00	143 / 2.34		10 / 0.28			0.1				26	107	0	11		
4/4 1445	64	56	11.0	106	208	7.5	1.62[c]		14 / 0.61		0.0 / 0.00	113 / 1.85		6.2 / 0.17			0.4				27	81	0	4		
5/10 1215	64	60	11.1	111	153	8.0	19 / 0.95	2.2 / 0.18	8.7 / 0.38	1.6 / 0.04	0.0 / 0.00	80 / 1.31	3.0 / 0.06	4.5 / 0.13	0.1 / 0.01	0.3 / 0.02	0.0	20	ABS 0.0; PO_4 0.10	99	25	56	0	4		
6/4 1345	1.0	62	11.4	116	151	7.1	1.17[c]		7.5 / 0.33		0.0 / 0.00	80 / 1.31		4.2 / 0.12			0.0				22	58	0	1		
7/5 0950	19	68	10.4	114	167	7.8	1.36[c]		9.2 / 0.40		0.0 / 0.00	94 / 1.54		3.8 / 0.11			0.0				23	68	0	2		
8/6 1245	--	70	6.7	75	172	7.4	1.38[c]		9.6 / 0.42		0.0 / 0.00	98 / 1.61		4.8 / 0.14			0.0				23	69	0	2		
9/13 1415	110	78	6.1	73	223	7.3	29 / 1.45	4.7 / 0.39	12 / 0.52	2.9 / 0.07	0.0 / 0.00	132 / 2.16	5.0 / 0.10	5.0 / 0.14	1.0 / 0.02	0.1 / 0.01	0.0	22	ABS 0.0; PO_4 0.20	147	21	92	0	3		
10/2 0950	4	76	7.5	89	244	7.6	1.99[c]		13 / 0.57		0.0 / 0.00	147 / 2.41		7.5 / 0.21			0.0			150	22	100	0	2		
11/11 1350	11	63	10.0	104	263	7.9	2.16[c]		14 / 0.61		0.0 / 0.00	158 / 2.59		5.8 / 0.16			0.0				22	108	0	5		
12/4 1000	15	58	8.7	85	288	7.6	2.33[c]		16 / 0.70		0.0 / 0.00	171 / 2.80		8.0 / 0.23			0.1			184	23	116	0	3		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO.5)

TUOLUMNE RIVER BELOW DON PEDRO DAM (STA. NO. 31a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										USGS
1/19 1430	---	53	8.0	74	64	7.5	c 0.48		2.1 / 0.09		0.0 / 0.00	31 / 0.51		1.5 / 0.04			0.0				16	24	0	2	Median 23. Maximum 7000. Minimum 0.06	
2/7 1410	49	50	8.7	77	80	7.3	c 0.65		3.8 / 0.17		0.0 / 0.00	38 / 0.62		2.0 / 0.06			0.0				21	32	1	9		
3/9 1210	4980	48	10.6	92	75	7.3	c 0.65		2.6 / 0.11		0.0 / 0.00	33 / 0.54		2.1 / 0.06			0.0				14	33	6	20		
4/9 1400	2600	50	8.0	71	71	7.4	c 0.60		2.9 / 0.13		0.0 / 0.00	32 / 0.52		2.2 / 0.06			0.1				18	30	4	6		
5/9 1400	3400	54	5.5	51	35	7.1	3.2 / 0.16	1.1 / 0.09	2.0 / 0.09	0.8 / 0.02	0.0 / 0.00	19 / 0.31	0.4 / 0.01	0.6 / 0.02	0.0 / 0.00	0.1 / 0.01	0.0	9.6	PO_4 0.05	27	25	13	0	6		
6/7 1245	2600	56	6.7	64	29	7.0	c 0.19		1.6 / 0.07		0.0 / 0.00	14 / 0.23		0.4 / 0.01			0.0				27	10	0	5		
7/3 0945	2230	68	8.1	89	19	6.9	c 0.13		1.2 / 0.05		0.0 / 0.00	8 / 0.13		1.8 / 0.05			0.1				28	6	0	2		
8/13 0850	---	62	6.6	67	20	6.6	c 0.13		1.5 / 0.07		0.0 / 0.00	9.0 / 0.15		1.0 / 0.03			0.0				35	6	0	3		
9/8 1140	2070	66	6.7	72	22	6.7	1.9 / 0.09	0.5 / 0.04	1.2 / 0.05	0.2 / 0.01	0.0 / 0.00	8 / 0.13	0.2 / 0.00	1.2 / 0.03	0.4 / 0.01	0.1 / 0.01	0.0	5.4	PO_4 0.00	15	26	6	0	7		
10/18 1400	---	61	7.7	78	27	7.0	c 0.16		1.5 / 0.07		0.0 / 0.00	10 / 0.16		2.4 / 0.07			0.0				30	8	0	15		
11/	No sample collected.																									
12/10 1030	2900	54	9.4	88	21	6.6	c 0.17		0.9 / 0.04		0.0 / 0.00	9 / 0.15		2.0 / 0.06			0.0				19	8	1	4		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

TUOLUMNE RIVER AT HICKMAN-WATERFORD BRIDGE (STA. NO. 30)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/[illegible] 1300																										USGS
1/[illegible] 1325	155	53	7.4	70	548	7.8	c 2.68		58 / 2.52		0.0 / 0.00	112 / 1.84		108 / 3.05			0.1				48	134	42	2	Median 46. Maximum 7000. Minimum 2.1	
2/[illegible] 1300	[illegible]	57	[illegible].3	91	530	7.8	c 2.40		55 / 2.39		0.0 / 0.00	106 / 1.74		106 / 2.99			0.0				50	120	33	8		
3/[illegible] 1350	1,380	50	[illegible].2	80	82	7.4	c 0.66		3.1 / 0.13		0.0 / 0.00	34 / 0.56		2.0 / 0.11			0.0				16	33	5	25		
4/[illegible] 1500	664	61	[illegible].7	98	137	8.0	c 0.92		11 / 0.48		0.0 / 0.00	48 / 0.79		16 / 0.45			0.1				34	46	7	6		
5/5 1510	114	75	7.0	82	494	7.9	28 / 1.40	11 / 0.88	52 / 2.26	5.0 / 0.13	0.0 / 0.00	106 / 1.74	5.8 / 0.12	95 / 2.68	0.5 / 0.01	0.1 / 0.01	0.1	44	PO_4 0.15	294	48	114	27	5		
6/7 1400	117	78	10.2	124	503	8.5	c 2.40		54 / 2.35		6 / 0.20	110 / 1.61		99 / 2.79			0.1				49	120	30	2		
7/3 1200	113	78	6.5	79	547	8.2	c 2.48		65 / 2.83		0.0 / 0.00	114 / 1.87		114 / 3.22			0.2				53	124	31	6		
8/13 1015	125	78	7.8	94	536	8.0	c 2.44		62 / 2.70		0.0 / 0.00	118 / 1.93		106 / 2.99			0.0				53	122	25	2		
9/8 1340	135	74	9.0	104	528	8.2	31 / 1.55	9.8 / 0.81	56 / 2.44	5.4 / 0.14	0.0 / 0.00	117 / 1.92	4.2 / 0.09	104 / 2.93	0.2 / 0.00	0.2 / 0.01	0.1	54	PO_4 0.05	323	49	118	22	4		
10/18 1300	---	65	8.0	85	116	7.0	c 0.60		11 / 0.48		0.0 / 0.00	32 / 0.52		21 / 0.59			0.0				44	30	4	15		
11/	No sample collected.																									
12/10 1215	488	54	9.5	89	67	7.0	c 0.36		5.3 / 0.23		0.0 / 0.00	18 / 0.30		10 / 0.28			0.0				39	18	3	2		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)

TUOLUMNE RIVER AT TUOLUMNE CITY (STA. NO. 31)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH[b]	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
1/19 1135	257	51	2.9	26	909	7.3	c / 4.24		99 / 4.31		0.0 / 0.00	175 / 2.87		170 / 4.80			0.1				50	212	68	2	Median 2400. Maximum 7000. Minimum 37.	
2/7 1230	265	54	6.3	61	897	7.2	c / 4.06		97 / 4.22		0.0 / 0.00	155 / 2.54		190 / 5.36			0.0				51	203	76	5		
3/9 1605	3830	51	9.2	83	110	7.1	c / 0.75		6.1 / 0.27		0.0 / 0.00	37 / 0.61		9.2 / 0.26			0.0				26	37	7	35		
4/9 1155	915	64	6.5	68	274	7.1	c / 1.46		24 / 1.04		0.0 / 0.00	67 / 1.10		45 / 1.27			0.2				42	73	18	9		
5/9 1055	360	71	4.7	53	695	7.3	42 / 2.10	12 / 1.01	74 / 3.22	4.6 / 0.12	0.0 / 0.00	135 / 2.21	14 / 0.29	136 / 3.84	4.3 / 0.07	0.1 / 0.01	0.2	33	ABS 0.1; PO_4 1.5	387	50	155	44	5		
6/7 1000	350	71	5.6	64	669	7.2	c / 3.08		73 / 3.18		0.0 / 0.00	136 / 2.23		135 / 3.81			0.1				51	153	42	9		
7/3 1335	340	78	5.2	63	702	7.9	c / 3.36		82 / 3.57		0.0 / 0.00	142 / 2.33		138 / 3.89			0.1				52	168	52	20		
8/13 1335	350	79	5.3	65	848	7.2	c / 3.56		101 / 4.39		0.0 / 0.00	148 / 2.43		184 / 5.19			0.1				55	178	57	2		
9/8 1455	495	74	5.7	66	745	7.1	42 / 2.10	12 / 1.02	86 / 3.74	6.2 / 0.16	0.0 / 0.00	134 / 2.20	7.0 / 0.15	164 / 4.63	5.5 / 0.09	0.2 / 0.01	0.0	35	ABS 0.1; AS 0.01; PO_4 0.65	424	53	156	46	25		
10/19 1125	945	63	4.8	49	370	7.0	c / 1.60		41 / 1.78		0.0 / 0.00	68 / 1.11		76 / 2.14			0.1				53	80	24	15		
11/	No sample collected.																									
12/11 0900	1500	53	8.1	75	196	7.1	c / 0.89		19 / 0.83		0.0 / 0.00	36 / 0.59		39 / 1.10			0.0				48	44	11	4		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
YUBA RIVER AT MARYSVILLE (STA. 21)

Date and time sampled PST	Discharge in cfs	Temp °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
[illegible]	[illegible]	46	12.4	104	113	7.3/7.9	1.14[c]		2.5/0.11		0/0.00	57/0.93		1.8/0.05			0.1			78[e]	9	57	10	6	Median 50. Maximum 2400. Minimum 0.2	USGS
[illegible]	1010	48	11.4	98	111	7.3/8.0	0.99[c]		3.7/0.16		0/0.00	52/0.85		3.1/0.09			0.0			77[e]	14	50	7	75		
[illegible] 1130	2700	48	11.7	98	76	7.3/7.7	0.76[c]		2.2/0.10		0/0.00	38/0.62		7.0/0.20			0.1			53[e]	12	38	7	50		
[illegible] 1100	4940	53	11.5	105	76	7.4/7.8	0.70[c]		2.7/0.12		0/0.00	38/0.62		2.0/0.06			0.0			53[e]	15	35	4	30		
5/15 1015	2910	56	11.1	106	54	7.2/7.6	6.4/0.32	1.7/0.14	1.9/0.08	0.3/0.01	0/0.00	28/0.46	2.0/0.04	1.0/0.03	0.2/0.00	0.0/0.00	0.0	15	As 0.02; ABS 0.0; PO_4 0.00	42[f]	15	23	0	6		
6/11 1000	2920	62	10.0	102	57	7.2/7.4	0.50[c]		2.0/0.09		0/0.00	28/0.46		2.8/0.08			0.0			39[e]	15	25	2	6		
7/2 0950	444	69	8.6	95	76	7.3/7.4	0.64[c]		2.6/0.11		0/0.00	37/0.61		1.0/0.03			0.0			53[e]	15	32	2	15		
8/14 1430	45	81	8.3	104	153	7.4/7.4	1.46[c]		4.9/0.21		0/0.00	74/1.21		2.2/0.06			0.0			106[e]	13	73	12	2		
9/10 1245	125	72	9.0	103	127	7.5/7.9	14/0.70	6.0/0.49	3.6/0.16	0.5/0.01	0/0.00	66/1.08	11/0.23	1.8/0.05	0.0/0.00	0.1/0.01	0.1	17	As 0.00; ABS 0.0; PO_4 0.10	87[f] 838	12	60	6	5		
10/1 1255	197	72	9.0	103	129	7.3/7.7	1.14[c]		3.7/0.16		0/0.00	67/1.10		1.0/0.03			0.0			89[e]	12	57	2	4		
11/1 1115	757	58	10.0	98	74	7.1/7.3	0.65[c]		2.3/0.10		0/0.00	36/0.59		1.8/0.05			0.0			51[e]	13	32	2	40		
12/3 1230	17400	52	11.6	105	82	7.3/7.3	0.70[c]		3.0/0.13		0/0.00	41/0.67		2.2/0.06			0.0			57[e]	16	35	1	50		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-14

ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (NO. 5)
YUBA RIVER NEAR SMARTVILLE (STA. 21a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/5 1060	[illegible]	46	12.2	102	106	7.3/7.8	0.98[c]		2.5/0.11		0/0.00	54/0.89		1.5/0.04			0.0			73[e]	10	48	4	6	Median 5. Maximum 290. Minimum 0.0[g]	USGS
2/8 0915	[illegible]	44	11.8	96	101	7.1/7.9	0.94[c]		3.0/0.13		0/0.00	47/0.77		2.8/0.08			0.0			69[e]	12	47	8	20		
3/15 1000	[illegible]	47	12.1	101	72	7.4/7.7	0.72[c]		2.0/0.09		0/0.00	36/0.59		1.0/0.03			0.0			49[e]	11	36	6	35		
4/5 1230	[illegible]	54	11.9	110	73	7.4/7.7	0.64[c]		2.8/0.12		0/0.00	37/0.61		2.5/0.07			0.0			50[e]	14	32	2	9		
5/15 1200	[illegible]	57	11.1	107	50	7.3/7.6	0.8/0.34	1.0/0.08	1.7/0.07	0.3/0.01	0/0.00	26/0.43	1.0/0.02	2.0/0.06	0.0/0.00	0.1/0.01	0.0	12	PO_4 0.00	38[f]	14	21	0	4		
6/11 1200	[illegible]	62	9.7	99	53	7.2/7.3	0.44[c]		1.6/0.07		0/0.00	27/0.44		2.0/0.06			0.0			36[e]	14	22	0	3		
7/8 1110	[illegible]	65	9.1	96	58	7.3/7.7	0.49[c]		2.1/0.09		0/0.00	30/0.49		2.0/0.06			0.0			40[e]	16	24	0	1		
8/14 1515	[illegible]	74	8.7	102	91	7.4/7.5	0.84[c]		3.0/0.13		0/0.00	51/0.84		1.8/0.05			0.1			62[e]	13	42	0	1		
9/10 1430	[illegible]	73	8.4	97	111	7.4/7.6	17/0.85	2.1/0.17	3.2/0.14	0.5/0.01	0/0.00	62/1.02	5.2/0.11	1.8/0.05	0.0/0.00	0.1/0.01	0.1	15	As 0.00; ABS 0.0; PO_4 0.05	76[f] 76[g]	12	51	0	1		
10/1 1105	[illegible]	72	8.6	98	116	7.0/7.7	1.02[c]		3.2/0.14		0/0.00	69/1.13		1.5/0.04			0.0			79[e]	12	53	0	3		
11/1 1255	[illegible]	57	10.2	98	58	6.8/7.2	0.50[c]		1.8/0.08		0/0.00	30/0.49		0.8/0.02			0.0			40[e]	14	25	0	30		
12/3 1315	[illegible]	51	11.7	104	83	7.3/7.4	0.71[c]		2.6/0.11		0/0.00	43/0.70		2.0/0.06			0.0			57[e]	13	36	1	15		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

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TABLE P-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
CARSON RIVER, EAST FORK NEAR MARKLEEVILLE (STA. 115)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
1/9 1030	46	33	12.0	83	158	7.6 / 8.1	1.02[c]		13 / 0.57		0 / 0.00	74 / 1.21		6.5 / 0.18			0.2			117[e]	36	51	0	3	Median 6.2 Maximum 2400. Minimum 0.23	USGS
2/6 1130	63 MD	3[illegible]	11.8	82	127	7.3 / 7.9	0.84[c]		9.6 / 0.42		0 / 0.00	61 / 1.00		5.0 / 0.14			0.1			94[e]	33	42	0	40		
3/13 1215	56	3[illegible]	11.[illegible]	83	222	7.6 / 8.1	1.64[c]		13 / 0.57		0 / 0.00	87 / 1.43		5.5 / 0.16			0.2			164[e]	26	8[illegible]	11	3		
4/3 1040	[illegible]	[illegible]	11.2	8[illegible]	15[illegible]	8.4 / 7.9	1.08[c]		9.9 / 0.43		0 / 0.00	70 / 1.15		4.5 / 0.13			0.1			115[e]	28	54	0	30		
5/10 1020	1310	4[illegible]	10.[illegible]	89	57	7.3 / 7.6	6.4 / 0.32	1.2 / 0.10	3.4 / 0.15	0.9 / 0.0[illegible]	0 / 0.00	29 / 0.48	1.0 / 0.02	1.5 / 0.04	0.1 / 0.00	0.2 / 0.01	0.0	15	PO_4 0.10	44[f]	25	21	0	20		
[illegible]/14 0[illegible]	1[illegible]	14	10.[illegible]	[illegible]1	[illegible]	7.5 / 7.4	0.46[c]		3.4 / 0.15		0 / 0.00	34 / 0.56		1.8 / 0.05			0.0			37[e]	27	20	0	10		
7/12 [illegible]	333	51	9.1	81	64	7.5 / 7.6	0.44[c]		4.3 / 0.19		0 / 0.00	34 / 0.56		2.2 / 0.06			0.0			47[e]	30	22	0	[illegible]		
8/9 0945	1[illegible] MD	59	8.[illegible]	8[illegible]	101	7.9 / 7.9	0.73[c]		6.5 / 0.28		0 / 0.00	57 / 0.93		2.1 / 0.06			0.0			75[e]	28	37	0	10		
9/1[illegible] 1045	[illegible]	[illegible]2	[illegible]	[illegible]	94	7.5 / 8.0	9.6 / 0.48	2.4 / 0.20	6.4 / 0.28	1.0 / 0.03	0 / 0.00	50 / 0.82	4.0 / 0.08	2.5 / 0.07	0.2 / 0.00	0.1 / 0.01	0.2	22	PO_4 0.05	7[illegible][f] / 78[illegible]	28	34	0	2		
10/[illegible] 1055	63	51	9.2	82	142	7.5 / 7.9	0.91[c]		14 / 0.61		0 / 0.00	74 / 1.21		4.0 / 0.11			0.0			105[e]	40	46	10	5		
11/8 1205	[illegible]8	[illegible]	10.[illegible]	85	123	7.5 / 7.8	0.86[c]		8.6 / 0.37		0 / 0.00	64 / 1.05		4.4 / 0.12			0.1			91[e]	30	43	0	1		
12/1[illegible] 1020	56	33	11.7	81	131	7.3 / 7.9	0.91[c]		9.4 / 0.41		0 / 0.00	66 / 1.08		4.8 / 0.14			0.1			97[e]	31	45	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE F-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
CARSON RIVER, WEST FORK AT WOODSFORDS (STA. 115a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 0945	18 MD	34	11.7	82	77	7.4/7.8	—/0.66[c]		3.5/0.15		0/0.00	46/0.75		1.0/0.03			0.0			63[e]	19	33	0	2	Median 23. Maximum 230. Minimum 0.6	USGS
2/6 1100	17	38	11.1	83	77	7.2/7.8	—/0.60[c]		4.3/0.19		0/0.00	42/0.69		1.4/0.04			0.0			63[e]	24	30	0	15		
3/13 1145	17 MD	33	11.7	81	81	7.4/7.7	—/0.62[c]		4.7/0.20		0/0.00	43/0.70		1.0/0.03			0.0			66[e]	24	31	0	2		
4/3 1015	39	39	10.9	83	72	7.4/7.6	—/0.60[c]		4.4/0.19		0/0.00	40/0.66		1.8/0.05			0.0			59[e]	24	30	0	2		
5/10 0930	399	40	11.3	87	41	7.1/7.5	4.4/0.22	1.2/0.10	2.6/0.11	0.8/0.02	0/0.00	22/0.36	1.0/0.02	1.0/0.03	0.4/0.01	0.1/0.01	0.0	15	PO_4 0.05	38[f]	24	16	0	10		
6/14 0830	240	44	9.8	80	41	7.3/7.6	—/0.32[c]		1.7/0.07		0/0.00	22/0.36		2.0/0.06			0.0			33[e]	18	16	0	30		
7/12 0845	72	52	8.0	72	60	7.5/7.3	—/0.44[c]		2.5/0.11		0/0.00	30/0.49		2.2/0.06			0.0			49[e]	20	22	0	15		
8/9 0905	35	57	8.5	82	66	7.5/7.6	—/0.56[c]		3.2/0.14		0/0.00	39/0.64		1.9/0.05			0.0			54[e]	20	28	0	10		
9/13 1005	39	55	9.4	88	77	6.9/7.5	8.8/0.44	2.2/0.18	3.2/0.14	1.1/0.03	0/0.00	43/0.70	2.0/0.04	1.5/0.04	0.4/0.01	0.1/0.01	0.0	16	PO_4 0.00	56[f]/54[g]	18	31	0	2		
10/4 1010	18	49	9.2	80	77	7.5/7.7	—/0.64[c]		4.5/0.20		0/0.00	43/0.70		1.5/0.04			0.0			63[e]	24	32	0	3		
11/8 1120	29	42	10.5	83	72	7.3/7.6	—/0.56[c]		3.4/0.15		0/0.00	40/0.66		1.4/0.04			0.0			59[e]	21	28	0	30		
12/13 0950	19 MD	35	11.4	81	74	7.1/7.7	—/0.57[c]		3.5/0.15		0/0.00	42/0.69		0.8/0.02			0.0			60[e]	21	28	0	0.8		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
LAKE TAHOE AT BIJOU (STA. 39)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 0800		38	10.0	75	95	7.5/7.9	0.82[c]		5.6/0.24		0/0.00	56/0.92		1.8/0.05			0.1			62[e]	23	41	0	3	Median 0.23 Maximum 23. Minimum <0.045	USGS
2/6 0840		39	9.8	75	91	7.3/7.9	0.69[c]		5.5/0.24		0/0.00	49/0.80		3.2/0.09			0.1			59[e]	26	35	0	2		
3/13 0900		34	10.5	74	93	7.5/7.9	0.66[c]		6.0/0.26		0/0.00	50/0.82		3.1/0.09			0.0			61[e]	28	33	0	1		
4/3 0830		48	9.5	82	94	7.4/7.8	0.70[c]		6.8/0.30		0/0.00	51/0.84		2.5/0.07			0.0			61[e]	30	35	0	3		
5/10 0730		45	10.1	83	90	7.4/7.8	10/0.50	1.5/0.12	5.9/0.26	1.5/0.04	0/0.00	49/0.80	1.0/0.02	3.2/0.09	0.0/0.00	0.1/0.01	0.0	13	PO_4 0.00	60[f]	28	31	0	1		
6/14 0715		56	8.3	79	88	7.6/7.6	0.61[c]		6.5/0.28		0/0.00	48/0.79		2.2/0.06			0.0			57[e]	31	31	0	1		
7/1[illegible] 0720		61	7.5	76	86	7.5/7.7	0.60[c]		6.7/0.29		0/0.00	47/0.77		3.5/0.10			0.0			56[e]	33	30	0	6		
8/9 0720		58	7.8	76	91	7.7/7.9	0.62[c]		6.4/0.28		0/0.00	51/0.84		2.0/0.06			0.0			59[e]	31	31	0	10		
9/13 0720		55	7.8	73	95	7.5/7.9	8.8/0.44	3.2/0.26	6.2/0.27	1.4/0.04	0/0.00	54/0.89	1.0/0.02	2.5/0.07	0.3/0.00	0.1/0.01	0.0	13	PO_4 0.00	64[f]/64[g]	27	35	0	2		
10/4 0750		5[illegible]	7.8	70	97	7.3/7.6	0.68[c]		6.8/0.30		0/0.00	56/0.92		2.8/0.08			0.1			63[e]	31	34	0	10		
11/8 0845		45	9.1	76	95	7.4/7.9	0.68[c]		6.1/0.27		0/0.00	54/0.89		1.8/0.05			0.0			62[e]	28	34	0	1		
12/13 0855		39	9.8	75	96	7.3/7.8	0.66[c]		5.7/0.25		0/0.00	55/0.90		3.1/0.09			0.0			63[e]	27	33	0	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE 4-1[illegible]

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
LAKE TAHOE AT TAHOE CITY (STA. 38)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1/8 1145		40	10.1	78	109	7.6/7.6	—/0.90[c]		5.9/0.26		0/0.00	62/1.02		1.5/0.04			0.0			73[e]	22	45	0	3	Median 0.82 Maximum 23. Minimum <0.045	USGS
2/5 1430		42	8.0	63	120	7.3/8.0	—/0.94[c]		6.7/0.29		0/0.00	70/1.15		2.0/0.06			0.0			81[e]	24	47	0	1		
3/12 1245		37	11.1	82	93	7.5/7.9	—/0.66[c]		5.7/0.25		0/0.00	50/0.82		2.8/0.08			0.0			63[e]	27	33	0	3		
4/2 1300		50	10.2	90	95	7.4/7.9	—/0.74[c]		6.6/0.29		0/0.00	52/0.85		1.8/0.05			0.0			64[e]	28	37	0	4		
5/9 1010		54	8.4	78	99	7.4/7.8	9.2/0.46	2.7/0.22	6.5/0.28	1.6/0.04	0/0.00	52/0.85	2.0/0.04	3.0/0.08	0.0/0.00	0.1/0.01	0.0	15	ABS 0.0; PO_4 0.00	66[f]	28	34	0	10		
6/12 0915		60	7.9	79	98	7.5/7.6	—/0.70[c]		6.1/0.27		0/0.00	54/0.89		2.4/0.07			0.0			66[e]	28	35	0	2		
7/11 1140		62	8.1	83	94	7.9/8.0	—/0.64[c]		6.8/0.30		0/0.00	52/0.85		3.8/0.11			0.0			63[e]	32	32	0	6		
8/8 1140		62	8.0	82	94	7.9/8.0	—/0.67[c]		7.0/0.30		0/0.00	52/0.85		2.2/0.06			0.0			63[e]	31	33	0	10		
9/12 1210		65	8.5	90	94	7.5/8.0	9.9/0.49	2.3/0.19	6.3/0.27	1.6/0.04	0/0.00	52/0.85	0.0/0.00	2.4/0.07	0.0/0.00	0.1/0.01	0.0	14	As 0.00; ABS 0.0; PO_4 0.05	63[f]/60[g]	27	34	0	2		
10/3 1020		58	8.2	80	98	6.9/7.7	—/0.68[c]		7.2/0.31		0/0.00	54/0.89		4.2/0.12			0.1			66[e]	31	34	0	9		
11/7 1340		50	10.7	94	97	7.5/7.9	—/0.68[c]		6.4/0.28		0/0.00	56/0.92		1.5/0.04			0.0			65[e]	29	34	0	1		
12/12 1005		36	9.8	72	100	7.3/7.5	—/0.71[c]		6.3/0.27		0/0.00	58/0.95		3.2/0.09			0.0			67[e]	28	36	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

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TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
LAKE TAHOE AT TAHOE VISTA (STA. 37)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							ppm / equivalents per million																			
1962																										
1/8 1230		44	10.1	82	94	7.6/7.8	—/0.78[c]		5.3/0.23		0/0.00	53/0.87		2.2/0.06			0.0			63[e]	23	39	0	3	Median 0.62 Maximum 23. Minimum <0.045	USGS
2/5 1500		48	10.3	85	90	7.5/7.9	—/0.78[c]		5.5/0.24		0/0.00	50/0.82		3.6/0.10			0.0			61[e]	26	34	0	2		
3/12 1345		40	11.0	89	90	7.5/8.0	—/0.70[c]		5.9/0.26		0/0.00	52/0.85		3.5/0.10			0.0			65[e]	27	35	0	1		
4/2 1415		49	10.0	87	94	8.3/8.0	—/0.74[c]		6.8/0.30		0/0.00	53/0.87		1.8/0.05			0.0			63[e]	29	37	0	8		
5/9 1130		50	10.0	88	93	7.4/8.0	10/0.50	1.9/0.16	6.3/0.27	1.6/0.04	0/0.00	51/0.84	1.0/0.02	3.5/0.10	0.0/0.00	0.1/0.01	0.0	14	PO_4 0.00	63[f]	28	33	0	3		
6/12 1315		56	9.1	87	93	7.5/7.1	—/0.66[c]		5.9/0.26		0/0.00	48/0.79		2.4/0.07			0.0			63[e]	28	33	0	1		
7/11 1210		64	7.8	82	94	7.9/7.9	—/0.68[c]		7.1/0.31		0/0.00	52/0.85		3.2/0.09			0.0			63[e]	32	33	0	20		
8/8 1245		65	7.7	82	93	7.9/7.9	—/0.68[c]		7.1/0.31		0/0.00	52/0.85		2.4/0.07			0.0			63[e]	33	31	0	10		
9/12 1250		64	9.4	98	94	7.4/7.9	10/0.50	1.9/0.16	6.5/0.28	1.4/0.04	0/0.00	54/0.89	1.0/0.02	1.2/0.03	0.3/0.00	0.1/0.01	0.1	13	PO_4 0.00	62[f]/61[g]	29	33	0	3		
10/3 1110		60	8.1	81	97	6.0/7.8	—/0.72[c]		6.7/0.29		0/0.00	54/0.89		3.4/0.10			0.2			65[e]	29	36	0	15		
11/7 1420		55	9.1	86	95	8.2/8.2	—/0.79[c]		6.3/0.27		0/0.00	55/0.90		1.5/0.04			0.0			64[e]	28	34	0	1		
12/12 1040		47	9.4	80	94	7.3/7.9	—/0.70[c]		6.4/0.28		0/0.00	54/0.89		3.5/0.10			0.0			63[e]	29	35	0	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE B-15

ANALYSES OF SURFACE WATER

LAHANTON REGION (NO. 6)

MOJAVE RIVER AT THE FORKS (STA. 67a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1962																										
1-5 1000	30 est.	40	11.6	98	315	7.3[a]			37 / 1.61		0 / 0.00	126 / 2.06		10 / 0.28			0.09				50	82	0	<25	6.2 6.2	DWR
2-13 1335	Crossing flooded Cannot get to station																									
3-12 1000	150 est.	44	11.6	96	164	7.4[a]	17 / 0.85	3.0 / 0.25	12 / 0.52	1.0 / 0.02	0 / 0.00	71 / 1.16	11 / 0.23	7 / 0.20	2.0 / 0.03	0.5 / 0.02	0.08	27		127	32	55	0	<25	<0.45 <0.45	
4-2 1540	150 est.	56	10.8	102	111	7.6[a]			9 / 0.39		0 / 0.00	56 / 0.92		4 / 0.11			0.04				33	40	0	<25	2.3 6.2	
5-14 1545	30 est.	60	8.4	84	175	7.4[a]	16 / 0.80	3 / 0.25	15 / 0.65	1.5 / 0.04	0 / 0.00	84 / 1.38	8.2 / 0.17	4 / 0.11	1.0 / 0.01	0.8 / 0.04	0.08	23	PO_4 = 0.05 As = 0.00	106	37	53	0	<25	6.2 13	
6-11 1140	20 est.	78	7.2	87	210	7.4[a]			19 / 0.83		0 / 0.00	96 / 1.58		5 / 0.14			0.00				38	68	0	<25	6 23	
7-5 1310	5 est.	84	6.4	82	277	7.8[a]	21 / 1.05	4.3 / 0.35	30 / 277	2.1 / 0.05	0 / 0.00	111 / 1.82	31 / 0.65	6 / 0.17	0.2 / 0.00	1.4 / 0.07	0.10	28		20	48	70	0	<25	23 62	
8-1 1445	3 est.	85	7.6	99	379	7.6[a]			41 / 1.78		9.6 / 0.32	107 / 1.76		11 / 0.31			0.17				52	82	0	<25	21 31	
9-12 1410	1 est.	80	8.8	108	482	7.6[a]	31 / 1.55	7.4 / 0.61	59 / 2.57	3.5 / 0.09	4.8 / 0.16	132 / 2.16	96 / 2.01	14 / 0.39	0.5 / 0.00	3.2 / 0.17	0.21	23	PO_4 = 0.22	336	53	108	0	<25	6 6	
10-4 1320	3 est.	70	7.6	85	565	7.7[a]			71 / 3.09		0 / 0.00	126 / 2.06		16 / 0.45			0.29				58	113	10	<25	62 23	
11-5 1040	7 est.	58	8.4	81.7	443	7.5[a]			62 / 2.70		0 / 0.00	127 / 2.08		11 / 0.31			0.23				61	88	0	<25	>700 >700	
12-3 1435	10 est.	60	8.4	83	472	7.3[a]			43 / 1.87		0 / 0.00	185 / 3.04		25 / 0.71			0.10				40	141	0	<25	230 6	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE -15

ANALYSES OF SURFACE WATER

LAHANTON REGION (NO. 6)

MOJAVE RIVER NEAR VICTORVILLE (STA. 67)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-5 1200	50	56	7.6	72	475	7.3[a]			43 / 1.87		0 / 0.00	190 / 3.12		29 / 0.82			0.09				39	145	0	<25	6.2 23	DWR
2-13 1500	72	58	8.8	84	298	7.8[a]	26 / 1.30	6.5 / 0.54	23 / 1.00	3.4 / 0.09	0 / 0.00	116 / 1.90	30 / 0.63	14 / 0.39	4.3 / 0.07	0.2 / 0.01	0.10	20		178	34	92	0	100	240 50	
3-12 1100	40	60	8.8	87	482	7.3[a]	42 / 2.09	10 / 0.87	39 / 1.70	3.3 / 0.08	0 / 0.00	187 / 3.06	42 / 0.88	30 / 0.85	3.0 / 0.05	0.5 / 0.02	0.10	29		315	36	148	0	<25	<0.45 1.3	
4-2 1710	26	70	7.2	82	463	8.2[a]			44 / 1.91		0 / 0.00	190 / 3.12		30 / 0.85			0.09				40	145	0	<25	23 6.2	
5-14 1640	22	60	7.6	76	481	7.3[a]	38 / 1.90	12 / 0.96	43 / 1.87	2.6 / 0.07	0 / 0.00	187 / 3.06	41 / 0.86	28 / 0.79	2.9 / 0.05	0.58 / 0.03	0.12	25	PO_4 = 0.46 As = 0.00	300	39	143	0	<25	6.2 6.2	
6-11 1245	16	88	7.2	96	468	7.7[a]			43 / 1.87		0 / 0.00	189 / 3.10		28 / 0.79			0.10				40	142	0	<25	6.2 6.2	
7-5 1450	15.4	87	6.0	79	484	7.6[a]			47 / 2.04		0 / 0.00	187 / 3.06		29 / 0.82			0.11				42	143	0	<25	23 6.2	
8-1 1345	11	87	6.4	85	496	7.6[a]			44 / 1.91		12 / 0.40	159 / 2.60		33 / 0.93			0.12				41	138	0	<25	240 23	
9-12 1245	17.6	80	6.8	84	472	7.9[a]	44 / 2.20	7.9 / 0.65	48 / 2.09	2.4 / 0.06	0 / 0.00	183 / 3.00	46 / 0.96	33 / 0.83	2.0 / 0.03	0.54 / 0.03	0.12	27	PO_4 = 0.40 ABS = 0.14	270	42	142	0	<25	62 240	
10-4 1215	15.4	70	7.2	80	472	7.8[a]			45 / 1.96		0 / 0.00	182 / 2.98		30 / 0.85			0.10				41	140	0	<25	62 62	
11-5 1230	21	64	7.2	75.1	478	7.5[a]			20 / 0.87		0 / 0.00	184 / 3.02		28 / 0.79			0.12					146	0	<25	2400 620	
12-3 1600	21	60	8.4	83	472	7.3[a]			43 / 1.87		0 / 0.00	185 / 3.04		25 / 0.71			0.10				40	141	0	<25	<4.5 46	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)

SUSAN RIVER AT SUSANVILLE (STA. 17b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a / b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]		11.[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / [illegible]		[illegible] / [illegible]	1.[illegible] / 1.7[illegible]		[illegible] / [illegible]			[illegible] / [illegible]				1[illegible]	7[illegible]	0	1	Maximum 1,300.	USGS
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / [illegible]		[illegible] / 0.00	[illegible] / 1.11		[illegible] / [illegible]			[illegible] / [illegible]				1[illegible]	[illegible]	0	[illegible]	Minimum 2.[illegible]	
[illegible]	[illegible]		11.[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / 1.[illegible]		[illegible] / 0.23		[illegible] / 0.00	[illegible] / 1.4[illegible]		[illegible] / 0.1[illegible]			[illegible] / 0.1				1[illegible]	7[illegible]	2	[illegible]	Median 9[illegible].	
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		3.[illegible] / 0.1[illegible]		[illegible] / [illegible]	[illegible] / 0.7[illegible]		[illegible] / 0.11			[illegible] / 0.[illegible]				2[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / [illegible]	[illegible] / 0.1[illegible]	[illegible] / 0.03	[illegible] / [illegible]	[illegible] / 0.7[illegible]	[illegible] / [illegible]	[illegible] / 0.0[illegible]	[illegible] / [illegible]	[illegible] / 0.1	[illegible] / [illegible]	2[illegible]	PO_4 [illegible]	[illegible]	17	3[illegible]	[illegible]	4		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.1[illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				14	4[illegible]	0	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.1[illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]			[illegible] / [illegible]				1[illegible]	2[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.03			[illegible] / [illegible]				17	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	183	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	12[illegible] / 1.[illegible]		[illegible] / 0.01			[illegible] / [illegible]				17	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible] / [illegible]	21 / 1.[illegible]	[illegible] / [illegible]	7.3 / .32	2.4 / [illegible]	[illegible] / [illegible]	128 / 2.1	1.0 / [illegible]	0.5 / 0.01	0.4 / 0.1	[illegible] / [illegible]	0.[illegible]	40	PO_4 [illegible]	1[illegible] / 1[illegible]	15	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	1.7	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		4.2 / .18		[illegible] / [illegible]	[illegible] / .82		0.8 / 0.[illegible]			[illegible] / [illegible]				2[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	121	[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.2[illegible]		[illegible] / [illegible]	7[illegible] / 1.2[illegible]		1.[illegible] / [illegible]			0.[illegible]				1[illegible]	[illegible]	0	1		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	[illegible] / [illegible]		2.7 / .1[illegible]		[illegible] / 0.00	[illegible] / 0.92		1.[illegible] / [illegible]			[illegible] / [illegible]				17	4[illegible]	0	7		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
TRUCKEE RIVER NEAR FARAD (STA. 53)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH[a]/[b]	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/10 0900	110	34	11.8	83	144	7.6 / 7.6	14 / 0.70	3.4 / 0.28	8.2 / 0.36	1.7 / 0.04	0 / 0.00	67 / 1.10	5.9 / 0.12	5.9 / 0.17	0.0 / 0.00	0.1 / 0.00	0.10	22	PO_4 0.0	94[f] / 88[g]	25	49	0	7	Median 6.2 Maximum 7000. Minimum 0.23	DWR
2/7 0915	144	36	11.4	83	134	7.3 / 7.6	12 / 0.60	4.1 / 0.34	7.3 / 0.32	1.8 / 0.05	0 / 0.00	64 / 1.05	5.9 / 0.12	5.1 / 0.14	0.3 / 0.00	0.1 / 0.00	0.18	22	PO_4 0.0	90[f] / 84[g]	24	47	0			
3/14 0845	199	33	11.9	82	115	7.3 / 7.7	11 / 0.55	4.2 / 0.35	6.0 / 0.26	1.6 / 0.04	0 / 0.00	60 / 0.98	4.4 / 0.09	2.7 / 0.08	0.8 / 0.01	0.1 / 0.00	0.05	21	PO_4 0.1	82[f] / 81[g]	22	45	0	11		
4/14 0915	780	37	11.6	86	89	7.2 / 7.4	9.2 / 0.46	2.7 / 0.22	4.2 / 0.18	1.4 / 0.04	0 / 0.00	41 / 0.67	4.6 / 0.10	2.1 / 0.06	1.8 / 0.03	0.0 / 0.00	0.05	18	PO_4 0.1	64[f] / 68[g]	20	34	0	20		
5/11 0940	1500	46	10.8	90	60.3	7.2 / 7.6	6.3 / 0.31	1.8 / 0.15	2.7 / 0.12	1.0 / 0.02	0 / 0.00	31 / 0.51	0.6 / 0.01	0.8 / 0.02	1.0 / 0.02	0.1 / 0.00	0.05	17	PO_4 0.0	46[f] / 58[g]	20	23	0	8		
6/15 0930	795	51	9.3	83	61.7	7.5 / 7.1	6.4 / 0.32	1.7 / 0.14	3.2 / 0.14	1.0 / 0.02	0 / 0.00	31 / 0.51	0.7 / 0.01	0.9 / 0.02	0.3 / 0.00	0.1 / 0.00	0.05	16	PO_4 0.5	45[f] / 41.5[g]	22	23	0	1.2		
7/13 0850	524	58	8.4	82	92.1	7.7 / 7.4	10 / 0.50	1.4 / 0.12	5.9 / 0.26	1.6 / 0.04	0 / 0.00	48 / 0.79	1.3 / 0.03	2.9 / 0.08	0.9 / 0.01	0.0 / 0.00	0.03	17	PO_4 0.03	65[f] / 59[g]	28	31	0	8.5		
8/10 0935	511	56	9.0	86	93.5	7.7 / 7.4	10 / 0.50	1.9 / 0.16	6.2 / 0.27	1.8 / 0.05	0 / 0.00	51 / 0.84	1.6 / 0.03	2.9 / 0.08	0.9 / 0.01	0.1 / 0.00	0.05	18	PO_4 0.05	68[f] / 60[g]	28	33	0	3.5		
9/14 0920	479	57	8.9	86	83.9	7.0 / 7.7	10 / 0.50	1.2 / 0.10	5.0 / 0.22	1.5 / 0.04	0 / 0.00	45 / 0.74	1.8 / 0.04	2.7 / 0.08	0.0 / 0.00	0.0 / 0.00	0.05	16	PO_4 0.04	60[f] / 64[g]	26	30	0	2.2		
10.5 0920	390	50	9.1	80	93	7.5 / 7.5	8.3 / 0.41	2.6 / 0.21	5.1 / 0.22	1.6 / 0.04	0 / 0.00	46 / 0.75	1.5 / 0.03	2.0 / 0.06	0.13 / 0.02	0.1 / 0.00	0.08	19	PO_4 0.04	63[f] / 69[g]	25	31	0	3.8		
11/9 1115	484	45	9.9	82	76	7.5 / 7.9	7.4 / 0.37	2.1 / 0.17	4.4 / 0.19	1.4 / 0.04	0 / 0.00	39 / 0.64	0.6 / 0.01	3.0 / 0.08	0.0 / 0.00	0.1 / 0.00	0.05	17	PO_4 0.17	55[f] / 63[g]	25	27	0			
12/14 1055	601	41	10.9	85	83	7.3 / 7.8	8.0 / 0.40	2.4 / 0.20	4.7 / 0.20	1.3 / 0.03	0 / 0.00	43 / 0.70	1.0 / 0.02	2.0 / 0.06	0.2 / 0.00	0.0 / 0.00	0.04	18	PO_4 0.02	59[f] / 79[g]	24	30	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
TRUCKEE RIVER NEAR TRUCKEE (STA. 52)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1/8 1000	21	36	11.3	82	143	7.6 / 7.8	1.14[c]		7.1 / 0.31		0 / 0.00	63 / 1.03		4.5 / 0.13			0.0			102[e]	21	57	5	3	Median 2.3 Maximum 230. Minimum 0.23	USGS
2/[illegible] 1130	30	46	11.9	[illegible]	129	7.3 / 7.8	0.93[c]		6.0 / 0.26		0 / 0.00	49 / 0.80		4.9 / 0.14			0.0			89[e]	22	46	6	4		
3/12 1000	34	34	12.1	85	144	7.5 / 7.9	1.12[c]		6.4 / 0.28		0 / 0.00	53 / 0.87		6.3 / 0.18			0.0			103[e]	20	56	13	1		
4/[illegible] 1000	138	38	11.5	86	107	7.1 / 7.7	0.86[c]		5.5 / 0.24		0 / 0.00	48 / 0.79		4.8 / 0.14			0.1			76[e]	22	43	4	8		
5/9 0830	426	41	11.5	90	52	7.2 / 7.5	7.2 / 0.36	0.7 / 0.06	2.4 / 0.10	0.4 / 0.01	0 / 0.00	26 / 0.43	3.0 / 0.06	1.8 / 0.05	0.2 / 0.00	0.1 / 0.00	0.0	15	PO_4 0.00	44[f]	19	21	0	6		
6/12 0830	232	42	10.4	82	49	7.2 / 7.3	0.38[c]		2.0 / 0.09		0 / 0.00	24 / 0.39		0.8 / 0.02			0.0			35[e]	19	19	0	3		
7/11 1040	385	60	8.0	80	91	7.9 / 8.0	0.66[c]		6.3 / 0.27		0 / 0.00	49 / 0.80		3.5 / 0.10			0.0			65[e]	29	33	0	7		
8/8 1100	315	59	8.3	82	95	7.7 / 7.9	0.66[c]		6.5 / 0.28		0 / 0.00	52 / 0.85		2.4 / 0.07			0.0			68[e]	30	33	0	10		
9/12 1130	122	61	8.3	84	100	7.7 / 8.0	10 / 0.50	3.2 / 0.26	6.5 / 0.28	1.5 / 0.04	0 / 0.00	56 / 0.92	3.0 / 0.06	2.5 / 0.07	0.0 / 0.00	0.1 / 0.01	0.0	15	PO_4 0.00	69[f] / 61[g]	26	38	0	3		
10/3 0935	61	52	9.1	82	109	7.4 / 7.7	1.00[c]		7.3 / 0.32		0 / 0.00	60 / 0.98		6.6 / 0.19			0.1			78[e]	24	50	1	2		
11/7 1240	39	45	10.8	89	113	7.7 / 7.8	0.86[c]		5.8 / 0.25		0 / 0.00	53 / 0.87		2.5 / 0.07			0.1			81[e]	23	43	0	1		
12/12 0925	43	33	11.8	82	111	7.1 / 7.7	0.85[c]		5.3 / 0.23		0 / 0.00	51 / 0.84		4.0 / 0.11			0.0			79[e]	21	42	0	10		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

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TABLE B-15

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
WALKER RIVER, EAST NEAR BRIDGEPORT (STA. 116a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1/9 1330	4.7	44	8.8	72	301	7.6 / 8.2	— / 1.84[c]		28 / 1.22	4.4 / 0.11	0 / 0.00	145 / 2.38		6.5 / 0.18			0.1			203[e]	38	92	0	3	Median 23. Maximum >7000. Minimum 0.62	USGS
2/6 1500	5.8	44	8.7	71	279	7.4 / 8.2	— / 1.89[c]		23 / 1.00		0 / 0.00	142 / 2.33		5.9 / 0.16			0.0			188[e]	35	94	0	15		
3/13 1500	5.8	42	9.8	78	395	7.6 / 8.0	— / 1.78[c]		49 / 2.13		0 / 0.00	156 / 2.56		21 / 0.59			0.4			266[e]	54	89	0	10		
4/3 1345	56	42	9.2	74	425	7.6 / 7.8	— / 1.80[c]		55 / 2.39		0 / 0.00	174 / 2.85		18 / 0.51			0.5			286[e]	57	90	0	10		
5/10 1330	231	60	8.4	84	229	7.6 / 8.0	20 / 1.00	4.6 / 0.38	21 / 0.91	4.0 / 0.10	0 / 0.00	109 / 1.79	21 / 0.44	5.5 / 0.16	0.4 / 0.01	0.3 / 0.02	0.1	22	PO_4 0.25	153[f]	38	[illegible]	[illegible]	[illegible]		
6/14 1235	251	60	7.7	77	218	7.4 / 7.9	— / 1.34[c]		19 / 0.83		0 / 0.00	110 / 1.80		4.2 / 0.12			0.1			147[e]	38	67	0	5		
7/12 1250	338 MD	63	6.7	69	163	8.1 / 7.4	— / 1.08[c]		13 / 0.57		0 / 0.00	81 / 1.33		4.2 / 0.12			0.1			110[e]	35	54	0	15		
8/9 1200	262	69	7.0	78	178	8.3 / 7.6	— / 1.22[c]		14 / 0.61		0 / 0.00	94 / 1.54		3.6 / 0.10			0.1			120[e]	33	61	0	10		
9/13 1325	239	65	7.6	81	197	8.3 / 8.7	21 / 1.05	4.3 / 0.35	15 / 0.65	3.8 / 0.10	10 / 0.33	90 / 1.48	12 / 0.25	2.0 / 0.06	0.7 / 0.01	0.3 / 0.02	0.1	5.0	PO_4 0.10	118[f] 117[g]	30	70		15		
10/4 1300	80	58	7.4	72	210	8.4 / 7.6	— / 1.56[c]		15 / 0.65		0 / 0.00	116 / 1.90		2.9 / 0.08			0.1			142[e]	29	78	0	9		
11/8 1430	16	48	9.8	84	220	8.2 / 7.7	— / 1.54[c]		14 / 0.61		0 / 0.00	122 / 2.00		2.6 / 0.07			0.1			148[e]	28	[illegible]	0	8		
12/13 1220	11	40	10.6	82	223	7.6 / 8.0	— / [illegible][c]		15 / 0.65		0 / 0.00	124 / 2.03		4.3 / 0.12			0.1			150[e]	29	81	0	[illegible]		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated

TABLE B-1[illegible]

ANALYSES OF SURFACE WATER

LAHONTAN REGION (NO. 6)
WALKER RIVER, WEST NEAR COLEVILLE (STA. 116)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1[illegible]																										
1/[illegible] 1[illegible]	[illegible] MD	[illegible]	11.4	80	1[illegible]1	7.6 / 8.0	— / 1.06[c]		17 / 0.74		0 / 0.00	84 / 1.38		3.9 / 0.11			0.0			109[e]	41	53	0	2	Median 2.3 Maximum 7000. Minimum 0.12	USGS
2/[illegible] 1400	37	33	11.[illegible]	8[illegible]	105	7.2 / 7.9	— / 0.72[c]		7.1 / 0.31		0 / 0.00	56 / 0.92		3.2 / 0.09			0.0			71[e]	30	36	0	15		
3/1[illegible] 140[illegible]	[illegible] MD	[illegible]	1[illegible]		[illegible]	7.6 / 8.1	— / 0.81[c]		17 / 0.74		0 / 0.00	78 / 1.28		6.5 / 0.18			0.2			110[e]	46	44	0	5		
4/[illegible] 1245	110	43	11.1	89	101	8.4 / 8.0	— / 0.80[c]		6.6 / 0.29		0 / 0.00	54 / 0.89		3.7 / 0.10			0.0			68[e]	27	40	0	4		
5/10 1430	80[illegible]	48	9.8	84	45	7.2 / 7.3	4.8 / 0.24	1.2 / 0.10	2.3 / 0.10	0.[illegible] / 0.02	0 / 0.00	22 / 0.36	1.0 / 0.02	1.5 / 0.04	0.2 / 0.00	0.1 / 0.01	0.0	8.6	PO_4 0.05	31[f]	22	17	0	20		
6/14 1130	998	40	10.3	79	37	7.3 / 7.4	— / 0.30[c]		1.6 / 0.07		0 / 0.00	16 / 0.26		1.5 / 0.04			0.0			25[e]	19	15	2	5		
7/12 1145	525	48	9.1	78	38	7.1 / 7.4	— / 0.28[c]		2.0 / 0.09		0 / 0.00	20 / 0.33		1.7 / 0.05			0.0			26[e]	24	14	0	10		
8/9 1100	232	57	8.6	83	63	7.3 / 7.5	— / 0.52[c]		3.3 / 0.14		0 / 0.00	33 / 0.54		1.9 / 0.05			0.1			43[e]	21	26	0	10		
9/13 1225	63	59	8.9	88	134	7.5 / 7.9	15 / 0.75	2.8 / 0.23	8.5 / 0.37	0.9 / 0.02	0 / 0.00	71 / 1.16	8.0 / 0.17	1.8 / 0.05	0.0 / 0.00	0.1 / 0.01	0.0	13	PO_4 0.00	85[f] / 82[g]	27	49	0	2		
10/4 1210	42	47	9.5	81	125	7.5 / 8.1	— / 1.00[c]		9.6 / 0.42		0 / 0.00	68 / 1.11		4.0 / 0.11			0.1			84[e]	30	50	0	3		
11/8 1330	44	43	10.7	86	110	7.4 / 7.9	— / 0.71[c]		8.6 / 0.37		0 / 0.00	59 / 0.97		3.5 / 0.10			0.0			74[e]	34	35	0	2		
12/13 1130	37 MD	3[illegible]	11.1	79	15[illegible]	7.3 / 8.1	— / 0.86[c]		15 / 0.65		0 / 0.00	79 / 1.29		4.0 / 0.11			0.1			103[e]	43	43	0	1		

a Field pH
b Laboratory pH.
c Sum of calcium and magnesium in epm.
d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.
e Derived from conductivity vs TDS curves.
f Determined by addition of analyzed constituents.
g Gravimetric determination
h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE 1-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)
ALAMO RIVER NEAR CALIPATRIA (STA. 60)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-3 1415	411	54	9.2	89	4789	7.7[a]	223 / 11.13	139 / 11.45	663 / 28.84	10 / 0.26	0 / 0.00	264 / 4.32	853 / 17.73	1000 / 28.20	27 / 0.44	1.4 / 0.07	0.72	12		3230	56	1129	913	100	230 230	DWR
3-6 1240	993	61	[illegible]	9	3460	7.8[a]	168 / 8.38	113 / 9.34	448 / 19.49	10 / 0.25	0 / 0.00	214 / 3.50	710 / 14.80	630 / 17.77	18 / 0.29	0.8 / 0.04	0.42	16		2310	52	885	710	250	2400 62	DWR
3-13 1[illegible]	995 est.	58			3219	7.6	179 / 8.96	78 / 6.44	428 / 18.60	12 / 0.30	0 / 0.00	209 / 3.44	698 / 14.55	574 / 16.16	6 / 0.09	0.70 / 0.04	0.46	9	NH_4 = 2.2 Total N = 2 NO_2 = 0.[illegible] PO_4 = 4.58 ABS = 0.75; BOD=12	2240	54	770	598			TTL
[illegible]-10 1[illegible]	1[illegible]	[illegible]	6.[illegible]	[illegible]4	3401	7.9[a]	178 / 8.92	96 / 7.89	438 / 19.05	12 / 0.31	0 / 0.00	220 / 3.60	711 / 14.82	620 / 17.43	20 / 0.32	0.76 / 0.04	0.50	12	PO_4 = 0.70	2300	53	833	658	500	240 240	DWP
[illegible]-3 0[illegible]	1121	[illegible]	[illegible].6	9[illegible]	33[illegible]2	7.9[a]			442 / 19.23		0 / 0.00	215 / 3.52		590 / 16.64			0.52				54	811	635		620 620	
9-4 1[illegible]	1050	[illegible]	6.[illegible]	91	3492	7.9[a]	174 / 8.68	96 / 7.89	475 / 20.66	12 / 0.31	0 / 0.00	210 / 3.44	734 / 15.29	670 / 18.89	16 / 0.26	0.66 / 0.03	0.56	17	PO_4 = 0.30	2410		827	656	400	2400 620	DWR
11-[illegible] 1[illegible]1	950	72	8.4	95.4	3990	7.6[a]			518 / 22.53		0 / 0.00	222 / 3.64		770 / 21.71			0.52				54	946	764	300	620 230	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

ALAMO RIVER AT INTERNATIONAL BOUNDARY (STA. 59)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-1 1200	0.1	[illegible]	[illegible].4	[illegible]9	[illegible]936	[illegible].6[a]	213 / 10.63	141 / 11.60	789 / 34.32	10 / 0.26	0 / 0.00	393 / 6.44	1044 / 21.75	1010 / 28.47	9.0 / 0.15	1.5 / 0.08	1.52	12		3540	[illegible]0	1104	[illegible]2	[illegible]	[illegible] / 24[illegible]	DWR
1-6 1400	0.0	[illegible]	[illegible]	[illegible]	[illegible]345	[illegible].6[a]			842 / 36.63		0 / 0.00	323 / 5.30		1040 / 29.33			1.68				[illegible]	1[illegible]	[illegible]	[illegible]	[illegible] / 2.3	
1-10 [illegible]	0	[illegible]	[illegible].4	100	5348	7.6[a]	242 / 12.08	130 / 10.69	840 / 36.54	14 / 0.36	0 / 0.00	351 / 5.76	1126 / 23.65	1030 / 30.45	0 / 0.00	0.76 / 0.04	1.60	14	PO_4 = 0.02 As = 0.02	3740	61	1134	45	50	[illegible] / [illegible]	
2-3 [illegible]	0	[illegible]4	[illegible].6	72	[illegible]	[illegible].3[a]	[illegible] / 11.43	174 / 14.29	1008 / 43.85	13 / 0.33	0 / 0.00	345 / 5.66	1248 / 26.01	1340 / 37.[illegible]9	3.7 / 0.14	1.1 / 0.06	2.00	19		4365	63	12[illegible]	10[illegible]	<25	2.3 / 2.3	
9-5 [illegible]	0	82	4.0	50	6702	7.5[a]	242 / 12.08	230 / 18.19	1050 / 45.69	12 / 0.31	0 / 0.00	334 / 5.48	1287 / 26.82	1540 / 43.43	5.0 / 0.08	0.93 / 0.05	2.25	31	PO_4 = 0.08	4730	60	1293	1019	<25	[illegible] / 130	
11-9 0610	0.0	86	6.8	72.8	3808	7.6[a]			553 / 23.19		0 / 0.00	290 / 4.75		692 / 19.51			1.06				59	[illegible]97	[illegible]59	<25	72 / 72	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE [illegible]

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

ALL AMERICAN CANAL NEAR PILOT KNOB (STA. 50[illegible])

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1[illegible]																										
[illegible]-1[illegible] 1[illegible]					12[illegible]	[illegible].2	[illegible] / [illegible]	[illegible] / 2.[illegible]2	12[illegible] / [illegible].3	[illegible].[illegible] / [illegible].1[illegible]	0 / 0.00	17[illegible] / 2.35	314 / 6.54	124 / 3.47	1.4 / 0.02	0.6 / 0.03	0.1[illegible]	10		856	42	362	219	Clear		[illegible]
[illegible]-1 1[illegible]	[illegible]1	[illegible]	[illegible]	[illegible]	1311	[illegible].8	[illegible] / [illegible].[illegible]	22 / 1.82	134 / 5.83	[illegible].3 / 1.14	0 / 0.00	1[illegible]3 / 2.9[illegible]	32[illegible] / 6.82	123 / 3.4[illegible]	1.9 / 0.03	0.6[illegible] / 0.03	0.1[illegible]	12	PO_4 = 0.00 As = 0.00	823	43	373	231	<25	<4.5	DWR
[illegible]-[illegible] 1[illegible]	[illegible]1	[illegible]	[illegible]	1[illegible]1	1[illegible]01	[illegible].8	[illegible] / [illegible].[illegible]	3[illegible] / [illegible]	134 / [illegible]	[illegible].4 / 1.11	0 / 0.00	161 / 2.6[illegible]	338 / [illegible].05	127 / 3.5	2.0 / 0.03	0.7 / 0.04	0.1[illegible]	14	PO_4 = 0.02	862	44	3[illegible]	235	<25	0.[illegible] / [illegible].0	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), [illegible] States Agricultural Consultants and Laboratories (USACL) as indicated

32505-D-H 6-61-200 SPO

TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER NEAR BLYTHE (STA. 56c)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										
5-15 1645	11000 est	72	8.4	95	1164	9.0[a]	95 / 4.74	28 / 2.30	109 / 4.74	5.0 / 0.13	0 / 0.00	161 / 2.64	306 / 6.37	96 / 2.71	2.8 / 0.04	0.58 / 0.03	0.15	10	PO_4 = 0.08 As = 0.00	734	40	352	220	< 25	6 6	DWR
9-18 1245	10000 est	86	8.0	102	1144	8.0[a]	88 / 4.39	32 / 2.67	111 / 4.83	5.2 / 0.13	0 / 0.00	153 / 2.50	315 / 6.56	100 / 2.82	1.4 / 0.02	0.60 / 0.03	0.15	12	PO_4 = 0.04	774	40	353	228	< 25	23 23	DWR

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-B 6-61 200 SPO

TABLE D-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER AT COLORADO RIVER AQUEDUCT INTAKE (STA. 56d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1968																										
1-16		50			1080	8.3[a]	88 / 4.39	28.5 / 2.34	97 / 4.22	5 / 0.13	0 / 0.00	149 / 2.44	290 / 6.03	90 / 2.54	1.6 / 0.03	0.4 / 0.02		9.3	Free CO_2 = 1 ppm	684	38	337	215	0.9		MWD
2-13 1000		53			1050	8.4[a]	86 / 4.29	29 / 2.38	95 / 4.13	5 / 0.13	4 / 0.13	140 / 2.30	289 / 6.01	89 / 2.51	0.9 / 0.01	0.4 / 0.02		9.1	Free CO_2 = 1 ppm	677	38	334	213	1.0		
3-13 1005		55			1065	8.4[a]	88 / 4.39	28 / 2.30	94 / 4.09	6 / 0.15	1 / 0.03	148 / 2.43	290 / 6.03	85 / 2.40	1.4 / 0.03	0.4 / 0.02		9.3	Free CO_2 = 1 ppm	677	37	335	212	1.[illegible]		
4-10 1000					1055	8.3[a]	87 / 4.34	29 / 2.34	96 / 4.18	5 / 0.13	4 / 0.13	142 / 2.33	289 / 6.01	88 / 2.42	2.3 / 0.04	0.4 / 0.02		9.3	Free CO_2 = 1 ppm	681	38	334	212	[illegible]		
6-5		74			1110	8.4[a]	90 / 4.49	30 / 2.42	100 / 4.35	5 / 0.13	4 / 0.13	143 / 2.35	309 / 6.43	89 / 2.51	2.2 / 0.04	0.4 / 0.02		9	Free CO_2 = 1 ppm	710	3[illegible]	346	2[illegible]	[illegible]		
7-3 1100		82			1115	[illegible].9[a]	86 / 4.29	30 / 2.42	100 / 4.35	5 / 0.13	0 / 0.00	138 / 2.26	304 / 6.32	93 / 2.62	2.3 / 0.04	0.4 / 0.02		10		699	39	336	332	0.3		
8-22		83			1105	8.5[a]	86 / 4.29	30 / 2.42	104 / 4.52	5 / 0.13	2 / 0.07	124 / 2.03	314 / 6.53	96 / 2.71	1.9 / 0.03	0.4 / 0.02		10		711	40	336	230	0.7		
9-4		80			1110	8.3[a]	84 / 4.19	30 / 2.42	101 / 4.39	5 / 0.13	0 / 0.00	128 / 2.10	306 / 6.36	94 / 2.65	1.6 / 0.03	0.4 / 0.02		10		696	39	331	226	0.2		
10-2					1110	8.4[a]	83 / 4.14	30 / 2.47	106 / 4.61	4 / 0.10	2 / 0.07	131 / 2.15	306 / 6.36	96 / 2.71	1.5 / 0.02	0.5 / 0.03		9.9		704	41	331	200	0.3		
11-21 1005		69					87 / 4.34	29.5 / 2.42	100 / 4.35	5 / 0.13	2	134	307	94	1.6	0.4		10.1		704	- -	339	225	0.3		
12-4		61			1130	8.3[a]	90 / 4.49	30 / 2.47	109 / 4.74	5 / 0.13	0 / 0.00	149 / 2.44	315 / 6.55	96 / 2.71	2.2 / 0.04	0.4 / 0.02		9.9	Free CO_2 = 1 ppm	732	40	34[illegible]	206	0.3		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-0-B 6-61 200 SPO

TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER BELOW MORELOS DAM (STA. 56b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
[illegible]	1[illegible]	[illegible]	[illegible]	84	3314	[illegible].7[a]	132 / 9.03	[illegible]3 / 5.02	418 / 18.18	6.5 / 0.17	0 / 0.00	229 / 3.76	496 / 10.33	673 / 18.98	3.7 / 0.06	0.88 / 0.05	0.47	19	PO_4 = 0.08 As = 0.00	2082	54	755	567	40	2400 230	DWR
[illegible]		[illegible]	9.6	13[illegible]	2501	[illegible].7[a]	156 / 7.78	58 / 4.80	311 / 13.53	6.4 / 0.16	0 / 0.00	221 / 3.62	482 / 10.05	439 / 12.38	1.4 / 0.02	0.70 / 0.04	0.39	20	PO_4 = 0.06	1632	52	629	447	<25	23 6	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER BELOW PARKER DAM (STA. 55)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-15 1400	15000	72	8.6	100	1133	8.0[a]	90 / 4.49	30 / 2.49	104 / 4.52	4.9 / 0.13	0 / 0.00	15[illegible] / 2.[illegible]	200 / 4.20	91 / 2.[illegible]	2.4 / 0.04	[illegible] / [illegible]	0.14	11	PO_4 = 0.00 As = 0.00	680	49	34[illegible]	[illegible]	<[illegible]	[illegible] / 1.[illegible]	[illegible]
9-18 0630		73	8.4	100	1104	7.8[a]	88 / 4.39	29 / 2.41	106 / 4.61	5.0 / 0.13	0 / 0.00	146 / 2.40	203 / 4.41	93 / 2.62	2.0 / 0.03	[illegible] / [illegible]	0.14	12	PO_4 = 0.03	683	40	40	[illegible]	<[illegible]	[illegible] / 1.[illegible]	[illegible]

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH): City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER NEAR TOPOCK, ARIZONA (STA. 54)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen % Sat.	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12[illegible]	[illegible][a]	[illegible] / [illegible]	21 / [illegible]	104 / [illegible]	4.9 / 0.13	0 / 0.00	192 / [illegible]	297 / [illegible]	12 / [illegible]	[illegible] / [illegible]	0.6 / 0.03	0.14	11	PO_4 = 0.00 As = 0.00	671	39	350	217	<25	2.3 0.6	DWR
[illegible]	[illegible]	[illegible]	[illegible]	11	11[illegible]	[illegible][a]	21 / [illegible]	29 / [illegible]	104 / [illegible]	5.0 / [illegible]	0 / [illegible]	155 / [illegible]	316 / [illegible]	12 / [illegible]	4.2 / [illegible]	0.6 / [illegible]	0.14	12	PO_4 = 0.3	742	39	348	220	<25	0.6 0.6	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

COLORADO RIVER NEAR YUMA (STA. 56)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
2-19 1740		60			4800	8.0[b]	295 / 14.70	127 / 10.45	681 / 29.87	7.5 / 0.19	0 / 0.00	213 / 4.48	683 / 14.23	1254 / 35.35	1.8 / 0.03	0.8 / 0.04	0.80	19		3664	54	1258	1034	50		[illegible]
5-16 1100	1340	70	8.0	89	4144	7.8[b]	218 / 10.88	89 / 7.36	533 / 23.19	9.0 / 0.23	0 / 0.00	243 / 4.06	563 / 11.72	900 / 25.38	2.5 / 0.04	1.0 / 0.05	0.60	18	PO_4 = 0.00 As = 0.00	2611	56	912	709	[illegible]	2.2 2.3	DWR
9-6 1500		[illegible]	9.6	128	3609	8.0[b]	195 / 9.73	81 / 6.63	485 / 21.10	7.8 / 0.20	0 / 0.00	223 / 3.66	545 / 11.35	800 / 22.55	8.1 / 0.13	0.9 / 0.05	0.61	18	PO_4 = 0.00 As = 0.00	2342	56	818	635	<[illegible]	[illegible] 2.[illegible]	DWR

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), [illegible]

32505-D-B 6-61 200 SPO

TABLE [illegible]

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)
NEW RIVER AT INTERNATIONAL BOUNDARY (STA. 57)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (m cromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-[illegible] 11[illegible]	[illegible]	[illegible]	8.0	79	3078	8.2[a]	149 / 7.44	57 / 4.70	426 / 18.53	16 / 0.41	0 / 0.00	227 / 3.72	447 / 9.32	630 / 17.77	10 / 0.17	1.1 / 0.06	0.62	15		1938	60	607	4.1	500	6200 / 23000	[illegible]MR
[illegible] 1[illegible]	143	64	7.8	82	5618	8.2[a]	210 / 10.48	128 / 10.52	352 / 37.06	43 / 1.10	0 / 0.00	270 / 4.42	633 / 13.19	1515 / 42.72	12 / 0.20	0.8 / 0.04	1.12	27	PO_4 = 1.8 ppm ABS detergent 0.56	3546	63	1050	[illegible].9	40	[illegible]00000 / 240000	
[illegible]-10 0[illegible]	13[illegible]	84	8.0	[illegible]	5587	8.0[a]	225 / 11.23	113 / 9.29	860 / 37.41	34 / 0.87	0 / 0.00	264 / 4.32	724 / 15.03	1390 / 39.20	2.5 / 0.04	0.8 / 0.04	1.12	19	PO_4 = 0.68 As = 0.00 NH_4 = 1.9	3690	64	3690	1026	60	62000 / 13000[illegible]	
[illegible]-3 0[illegible]	92	73	4.[illegible]	5[illegible]	5869	8.1[a]			368 / 37.76		0 / 0.00	246 / 4.04		1215 / 34.26			1.18				65	1010	308	25	23000 / 23000	
[illegible]-[illegible] 0[illegible]	150	[illegible]4	4.4	56	6330	8.1[a]	225 / 11.23	134 / 11.03	1076 / 46.81	48 / 1.23	0 / 0.00	239 / 3.92	780 / 16.24	1765 / 49.77	14.0 / 0.23	1.0 / 0.05	1.68	26	PO_4 = 1.00	4398	67	1113	917	35	[illegible]00000 / 700000	
11-[illegible] 0710	146	68	7.8	85	4013	7.7[a]			580 / 25.23		0 / 0.00	210 / 3.44	900 / 25.34				0.86				64	704	532	50	13000 / 6200	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE 4-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

NEW RIVER NEAR WESTMORLAND (STA. 58)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1960																										
1-3 1320	364	58	8.2	81	6026	7.8[a]	231 / 11.53	116 / 9.57	940 / 40.89	20 / 0.51	0 / 0.00	281 / 4.60	732 / 15.25	1480 / 41.74	22 / 0.35	1.20 / 0.06	1.18	24		3924	64	1150	920	220	6200 6200	DWR
3-8 1350	550	62	8.4	85	4777	7.9[a]	202 / 10.08	99 / 8.16	720 / 31.32	20 / 0.51	0 / 0.00	248 / 4.06	669 / 13.93	1050 / 29.61	20 / 0.32	0.7 / 0.03	0.90	21		3061	63	912	709	300	23000 450	DWR
3-13 1340	5 est.	59			243	7.6[b]	149 / 7.44	102 / 8.36	670 / 29.50	22 / 0.55	0 / 0.00	232 / 3.80	655 / 13.65	940 / 26.47	5 / 0.08	0.81 / 0.04	0.76	12	NH_4 = 1.95 Total N = 3 NO_2 = 0.413 PO_4 = 3.25 ABS = 0.80 BOD = 9	2880	64	790	600	Clear		TTL
5-10 1140	701	70	5.7	66	4310	7.5[a]	199 / 9.93	93 / 7.64	630 / 27.41	18 / 0.46	0 / 0.00	239 / 3.92	691 / 14.39	950 / 26.79	12 / 0.19	0.76 / 0.04	0.88	15	PO_4 = 0.56 As = 0.00	2815	60	875	679	400	2400 2400	DWR
7-3 [illegible]	704	84	5.6	72	4378	7.3[a]			633 / 27.54		0 / 0.00	229 / 3.76		945 / 26.65			0.98				61	880	692	300	24000 23000	
9-4 1750	73	84	5.2	67	4107	7.6[a]	172 / 8.58	98 / 8.06	645 / 28.06	14 / 0.36	0 / 0.00	229 / 3.76	679 / 14.14	955 / 26.93	10 / 0.16	0.80 / 0.04	0.84	20	PO_4 = 0.50	2730	62	827	639	500	2100 70000	
11-7 1750	651	70	7.2	80.3	4496	8.0[a]			639 / 27.80		0 / 0.00	232 / 3.80		975 / 27.50			0.84				62	854	664		6200 2300	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-0-8 6-61 200 SPO

TABLE 3-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)

SALTON SEA AT SALTON SEA STATE PARK (STA. 68a)

Date and time sampled P S T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-																										
1-5	Sea	[illegible]	12.[illegible]	1[illegible]	41100	[illegible].3[g]			9900 / [illegible]		0 / 0.00	189 / 3.10		14200 / 401.[illegible]			7.80				[illegible]8	6040	5[illegible]	< 25	0.45 / 0.45	DWR
1-[illegible] 14	Sea	[illegible]			[illegible]	[illegible].9[g]	11[illegible] / [illegible]	1054 / [illegible].25	10100 / 440.00	162 / 4.14	0 / 0.00	185 / 3.04	9270 / 193.00	14240 / 401.75	0.0 / 0.00	2.0 / 0.10	5.50	2		37664	[illegible]5	7225	7073			[illegible]
- 12	Sea	[illegible]	1[illegible]	1[illegible]	4[illegible]1	8.2[g]			9400 / [illegible]		0 / 0.00	192 / 3.24		13600 / 383.50			7.40				73	5670	5608		0.45 / 0.45	DWR
1-1 1[illegible]	Sea	[illegible]	[illegible]	1[illegible]	4[illegible]	8.1[g]	76[illegible] / 3[illegible].17	964 / [illegible].2[illegible]	9720 / 422.80	160 / 4.10	0 / 0.00	166 / 2.72	7620 / 151.30	14000 / 394.80	4.3 / 0.07	3.4 / 0.18	7.90	3	PO_4 = 0.00 As = 0.00	34400	78	5870	5736	< 25	0.45 / 0.45	
- 12	Sea	[illegible]	7.2	9[illegible]	41[illegible]				9900 / [illegible]		0 / [illegible]	172 / 2.82		14400 / 405.60			7.70				77	6300	6159	< 25	6.2 / 0.6	
9- 1[illegible]	Sea	[illegible]	[illegible]	[illegible]	4840[illegible]	7.9[g]	82[illegible] / 41.17	932 / 76.69	10[illegible]00 / 4[illegible]6.[illegible]	160 / 4.10	0 / 0.00	193 / 3.16	7400 / 154.16	14[illegible]00 / 414.54	5.0 / 0.08	3.1 / 0.16	7.80	2.4	PO_4 = 0.04	35080	79	5972	5814	< 25	6.2 / 2.3	
11- [illegible]	Sea	[illegible]	10.[illegible]	1[illegible]	44300	8.1			9[illegible]25 / 423.0		0 / 0.00	190 / 3.12		14500 / 409.9			7.10					6250	6094	< 25	6.2 / 13	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), [illegible] States Agricultural Consultants and Laboratories (USACL) as indicated

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TABLE B-15

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)
WHITE WATER RIVER NEAR MECCA (STA. 68b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-3 1700	75 est	64	9.6	100	4034	7.6[a]			672 / 29.23		16 / 0.52	322 / 5.28		540 / 15.23			1.42				[illegible]	[illegible]	340	[illegible]	[illegible] / [illegible]	[illegible]
2-19 1230		49			4150	8.1[b]	219 / 10.95	29 / 2.40	700 / 30.43	0.29 / 11	0 / 0.00	332 / 5.42	684 / 22.57	506 / 14.25	23 / 0.37	3.2 / 0.16	1.20	17		270[illegible]	[illegible]	[illegible]	[illegible]			[illegible]
3-6 1100	75 est	64	9.4	9[illegible]	3970	7.6[a]			663 / 28.84		0 / 0.00	253 / 4.14		530 / 14.95			0.99					[illegible]	41	[illegible]	[illegible] / [illegible]	
5-10 1420	9[illegible] est.	[illegible]	[illegible]	1[illegible]	3611	7.9[a]	179 / 8.93	42 / 3.47	612 / 26.62	13 / 0.33	0 / 0.00	339 / 5.56	930 / 19.33	462 / 13.03	[illegible] / 0.43	[illegible] / 0.17	1.62	2[illegible]	PO_4 = 0.[illegible] As = 0.00	2453	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	
7-3 1145	90 est.	83	9.2	122	3403	7.3[a]			553 / 24.05		0 / 0.00	32[illegible] / 5.36		415 / 11.70			1.68				[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]	
9-4 1530	90 est.	90	[illegible]	[illegible]	3275	7.9[a]	163 / 8.17	43 / 3.53	540 / 23.42	13 / 0.33	0 / 0.00	312 / 5.12	872 / 18.16	430 / 12.13	25 / 0.42	3.1 / 0.16	[illegible]	24	PO_4 = 0.1[illegible]	22[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / 1[illegible]	
11-7 1535	80 est.	76	8.4	99.2	[illegible]21	7.9[a]			612 / 26.62		0 / 0.00	329 / 5.40		500 / 14.10			1.10				[illegible]	[illegible]	301	[illegible]	[illegible] / [illegible]	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), [illegible] States Agricultural Consultants and Laboratories (USAC[illegible]) [illegible] indicated

32565-D-H [illegible]-61 [illegible] GPO

TABLE B-16

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (NO. 7)
WHITE WATER RIVER NEAR WHITE WATER (STA. 68)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in ppm / equivalents per million																			
1942																										
1-4 1901[c]	6 est.	64	6.8	71	428	7.9[a]			17 / 0.74		0 / 0.00	220 / 3.60		6 / 0.17			0.00				16	193	13	<25	2.3 / 2.3	DWR
2-19 1830	6 est.	49			418	7.6[a]	53 / 2.67	15 / 1.17	14 / 0.60	4.6 / 0.12	0 / 0.00	211 / 3.47	22 / 0.46	17 / 0.48	0.4 / - -	0.9 / 0.05	0.05	15		262	13	192	18			[illegible] L
3-6 1905	6 est.	53	7.0	72	414	7.8[a]	37 / 1.55	17 / 1.45	15 / 0.65	4.7 / 0.12	0 / 0.00	198 / 3.24	41 / 0.85	4 / 0.11	1.3 / 0.02	0.9 / 0.05	0.00	20		218	16	165	3	<25	6.2 / 2.3	DWR
5-10 1530	6 est.	68	8.0	87	431	7.3[a]	58 / 2.89	11 / 0.91	18 / 0.78	4.8 / 0.12	0 / 0.00	215 / 3.52	45 / 0.93	5 / 0.14	1.2 / 0.02	0.98 / 0.05	0.01	18	PO_4 = 0.00 / As = 0.00	243	17	190	14	<25	Samples Lost	
7-3 1310	6 est	70	8.8	98	428	7.5[a]			16 / 0.70		0 / 0.00	210 / 3.44		3 / 0.08			0.00				15	192	20	<25	2.3 / 5.0	
9-4 1230	6 est.	72	8.4	96	418	7.8[a]	54 / 2.69	13 / 1.07	16 / 0.70	4.6 / 0.12	0 / 0.00	215 / 3.52	43 / 0.89	4 / 0.11	1.5 / 0.02	0.96 / 0.05	0.02	19	PO_4 = 0.00	255	15	189	13	<25	2.3 / 6.2	
11-7 1905	4 est	70	8.4	94.5	430	7.7[a]			14 / 0.61		0 / 0.00	207 / 3.40		5 / 0.14			0.00				14	191	21	<25	2.3 / 1.3	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR), United States Agricultural Consultants and Laboratories (USACL) as indicated.

32506-D-B 6-61 200 SPO

TABLE 6-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)
CHINO CREEK NEAR CHINO (STA. 86)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-2 0900	1/4 est.	46	12.0	100	1007	8.4[a]			93 / 4.04		0 / 0.00	466 / 7.64		[illegible] / 1.[illegible]			0.21				39	31	0	<25	[illegible] 230	[illegible]
2-14 0915	5 est.	54	7.6	72	881	7.4[a]	83 / 4.14	22 / 1.84	78 / 3.39	15 / 0.38	16 / 0.56	323 / 5.30	83 / 1.72	48 / 1.35	42 / 0.67	0.1 / 0.01	0.19	7	PO_4 = 8 ppm ABS detergents 0.32	576	3[illegible]	299	[illegible]	[illegible]	[illegible] 2400	
3-9 [illegible]	5 est.	56	6.4	58	997	7.3[illegible]	92 / 4.[illegible]	24 / 2.01	84 / 3.[illegible]	15 / 0.3[illegible]	0 / 0.00	417 / 6.84	90 / 1.[illegible]	55 / 1.55	1.6 / [illegible]	0.6 / 0.03	0.22	26	PO_4 = 6.3 ppm ABS detergents 1.1	632	3[illegible]	330	[illegible]	[illegible]	[illegible] 62[illegible]	
4-2 0910	1 est.	60	10.4	104	936	[illegible].4[a]			84 / 3.[illegible]		0 / 0.00	42[illegible] / 7.00		51 / 1.44			0.21				3[illegible]	332	0		[illegible] [illegible]	
[illegible]-7 1240	1 est.	78	6.4	77	827	7.6[a]	72 / 3.59	11 / 0.90	83 / 3.61	15 / 0.38	0 / 0.00	366 / 6.00	30 / 0.62	55 / 1.55	24 / 0.38	1.04 / 0.05	0.22	35	As = 0.[illegible] PO_4 = 21 NH_4 = 3.2	[illegible]11	42	28[illegible]	0	[illegible]	[illegible] [illegible]	
6-4 [illegible]	1 est	62	5.6	57	859	7.5[a]			83 / 3.61		0 / 0.00	373 / 6.12		63 / 1.[illegible]			0.22		PO_4 = 10 ABS [illegible] 0.[illegible]		42	251	0	<[illegible]	[illegible] [illegible]	
7-5 0850	Dry No flow																									
[illegible]-1 0730	Dry No flow																									
9-4 0740	Dry No flow																									
10-4 0755	Dry No flow																									
11-7 0905	Dry No flow																									
12-3 0925	Dry No flow																									

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

32505-D-B 6-61 200 520

TABLE [illegible]

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

LAKE ELSINORE NEAR ELSIN[illegible] (STA. 89)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-2 1100	Dry lake																									
3-16 1400		64	10.4	109	28660	8.4[a]	23 / 1.15	19 / 1.57	7850 / 341.40	107 / 2.74	139 / 4.64	625 / 10.24	4950 / 103.10	8100 / 228.40	20 / 0.33	2.9 / 0.15	7.2	1		21676	99	136	0	40	<0.045	DWR
5-8 0850	Dry lake																									
7-2 1135	Dry lake																									
9-6 1515	Dry lake																									
11-8 1515	Dry lake																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

32505-D-H 6-61 200 SPO

TABLE E-12

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

SANTA ANA RIVER NEAR ARLINGTON (STA. 51)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-10 1335	1	62	9.6	98	1052	[illegible][a]	114 / 5.69	24 / 1.97	78 / 3.39	5.2 / 0.13	0 / 0.00	339 / 5.56	110 / 2.29	66 / 1.86	25 / 0.56	0.[illegible] / 0.04	0.15	27	PO_4 = 0.25 ABS detergents 0.16	651	50	3[illegible]2	1[illegible]	35	[illegible]	[illegible]
2-10 1200	157	68	- -	- -	656	7.3[b]	67 / 3.36	14 / 1.16	48 / 2.10	7 / 0.18	0 / 0.00	205 / 3.37	70 / 1.46	54 / 1.52	14 / 0.23	0.4[illegible] / 0.02	0.21	19		624	3[illegible]	3[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]
2-14 1100	[illegible]	64	7.6	[illegible]	1000	7.5[a]	107 / 5.34	25 / 2.06	72 / 3.13	5.1 / 0.13	0 / 0.00	318 / 5.22	106 / 2.21	99 / 2.79	30 / 0.48	0.60	0.14	2[illegible]	PO_4 = 1.0 ABS - 0.05	470	31	2[illegible]	[illegible]	[illegible]		TTL
3-9 1100	24	64	9.6	100	1040	7.5[a]	105 / 5.24	29 / 2.40	76 / 3.31	4.7 / 0.12	0 / 0.00	321 / 5.26	119 / 2.47	104 / 2.93	28 / 0.45	0.60 / 0.03	0.12	29	PO_4 = 0.1 ppm ABS detergents 0.1	657	30	3[illegible]2	119	<25	[illegible]	MWD
4-2 1120	23	64	8.4	88	1045	7.7[a]	119 / 5.94	24 / 1.97	85 / 3.70	5.0 / 0.13	0 / 0.00	342 / 5.60	139 / 2.89	103 / 2.90	23 / 0.37	0.74 / 0.04	0.14	27	PO_4 = 0.54 ABS detergents ___	690	32	396	11[illegible]	<2[illegible]	[illegible]	
5-2 1015	26	68	8.4	92	1052	7.9[a]	99 / 4.94	22 / 1.81	71 / 3.09	4.4 / 0.11	0 / 0.00	271 / 4.44	115 / 2.40	100 / 2.82	22 / 0.35	0.64 / 0.03	0.14	25	PO_4 - 0.5 ABS - 0.04 As 0.00	6[illegible]	31	337	115	<2[illegible]	[illegible]	
6-4 1030	11	68	8.9	7	1006	7.8[a]	101 / 5.04	25 / 2.04	79 / 3.44	4.5 / 0.12	0 / 0.00	298 / 4.88	111 / 2.31	98 / 2.76	27 / 0.44	0.74 / 0.04	0.11	28	PO_4 = 0.7 ABS = 0.[illegible]	6[illegible]	32	354	11[illegible]	<[illegible]	[illegible]	
7-5 1045	27	72	8.4	95	1039	7.8[a]	105 / 5.24	23 / 1.92	74 / 3.22	4.6 / 0.12	0 / 0.00	301 / 4.94	111 / 2.31	98 / 2.76	30 / 0.48	0.62 / 0.03	0.15	25	PO_4 - 0.09 ABS = 0.06	608	31	353	111	<2[illegible]	[illegible]	
8-1 0920	23	70	9.6	106	1032	7.6[a]	94 / 4.69	26 / 2.14	76 / 3.31	4.6 / 0.12	0 / 0.00	273 / 4.48	110 / 2.30	101 / 2.85	21 / 0.34	0.80 / 0.04	0.14	27	PO_4 = 0.05 ABS = 0.14	6[illegible]0	32	[illegible]	11[illegible]	<2[illegible]	[illegible]	
9-12 0930	26	68	9.2	100	1019	7.9[a]	116 / 5.79	22 / 1.81	76 / 3.31	4.5 / 0.12	0 / 0.00	322 / 5.28	113 / 2.35	101 / 2.85	22 / 0.35	0.68 / 0.03	0.15	28	PO_4 = 0.00 ABS = 0.	600	30	370	11[illegible]	<2[illegible]	[illegible]	
10-4 0845	18.5	66	8.0	85	1024	7.9[a]			73 / 3.18		0 / 0.00	318 / 5.22		98 / 2.76			0.13		PO_4 - 0.02 ABS - 0.03		29	334	103		[illegible]	
11-7 1110	29	66	8.4	90.0	1104	7.[illegible][a]	111 / 5.54	23 / 1.18	92 / 4.00	4.9 / 0.13	0 / 0.00	320 / 5.24	111 / 2.32	98 / 2.76	27 / 0.44	0.8 / 0.04	0.10		PO_4 = 0.02 ABS = 0.09	6[illegible]2	31	371	109	<25	1[illegible]	
12-3 1115	24	66	8.8	94	1030	7.7[a]	100 / 5.39	25 / 2.07	70 / 3.05	70 / 3.05	0 / 0.00	311 / 5.10	113 / 2.35	94 / 2.65	21 / 0.34	0.[illegible] / 0.04	0.10	27	NH_4 = 0 ABS - 0.04	627	29	3[illegible]	11[illegible]	<25	[illegible]	[illegible]

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE B-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

SANTA ANA RIVER NEAR MONTONE (STA. 51b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-[illegible] 1[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible]	290	7.[illegible][a]			20 / 0.87		0 / 0.00	144 / 2.36		6 / 0.17			0.07				30	101	0	<25	2.3 2.3	DWR
[illegible]-1 1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	329	8.0[a]	24 / 1.00	5.6 / 0.46	16 / 0.70	2.5 / 0.06	0 / 0.00	109 / 1.[illegible]	13 / 0.37	6 / 0.17	3.2 / 0.05	0.4 / 0.02	0.05	19		147	30	83	0	<25	6.2 2.1	
[illegible] 1[illegible]	45 est.	[illegible]	1[illegible]	9[illegible]	247	7.6[a]			15 / 0.65		0 / 0.00	110 / 1.80		4 / 0.11			0.04				27	87	0	<25	<0.45 2.3	
[illegible] 1[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	301	7.0[a]			14 / 0.61		0 / 0.00	107 / 1.76		7 / 0.20			0.04				29	75	0	<25	0.6 0.6	
[illegible] 1[illegible]	[illegible]0	[illegible]	10.0	95	197	7.[illegible][a]	22 / 1.10	3.7 / 0.30	14 / 0.61	1.6 / 0.04	0 / 0.00	102 / 1.68	6.7 / 0.14	5 / 0.14	1.0 / 0.01	0.34 / 0.01[illegible]	0.06	19	PO_4 = 0.6 As = 0.00	125	30	69	0	<25	1.3 6.2	
[illegible]-4 1[illegible]	41	[illegible]	10.0	[illegible]	224	7.9[a]			15 / 0.65		0 / 0.00	111 / 1.82		4 / 0.11			0.00				28	82	0	<25	2.3 6.2	
[illegible]-[illegible] 11[illegible]	41 est.	[illegible]	9.[illegible]	1[illegible]0	240	7.[illegible][a]			15 / 0.65		0 / 0.00	113 / 1.86		3 / 0.08			0.05				28	85	0	<25	23 6.2	
[illegible]-1	27	[illegible]	9.[illegible]	1[illegible]	250	7.[illegible][a]			16 / 0.70		4.8 / 0.16	107 / 1.76		6 / 0.17			0.05				29	85	0	<25	23 23	
9-1 1[illegible]	26	[illegible]	9.2	92	240	7.9[a]	25 / 1.25	7.4 / 0.61	15 / 0.65	1.7 / 0.04	0 / 0.00	121 / 1.98	17 / 0.36	4 / 0.11	0.0 / 0.00	0.5 / 0.03	0.05	16	PO_4 = 0.16	156	25	93	0	<25	2.3 13	
10-4 1[illegible]	27	[illegible]	[illegible]	91	243	7.9[a]			14 / 0.61		0 / 0.00	113 / 1.94		5 / 0.14			0.06				25	92	0	<25	6.2 2.3	
11-14 1[illegible]	26	[illegible]	9.2	95.4	193	7.9[a]			15 / 0.65		0 / 0.00	122 / 2.00		6 / 0.17			0.05				26	94	0	<25	1.3 0.6	
12-2 1[illegible]	26 est.	[illegible]	10.2	[illegible]	253	8.0[a]			15 / 0.65		0 / 0.00	124 / 2.04		4 / 0.11			0.05				26	92	0	<25	0.6 0.46	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

SANTA ANA RIVER NEAR NORCO (STA. 51e)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1-12																										
1-19 1200	50 est.	56	6.4	61	1203	7.3[a]			109/4.74		0/0.00	325/5.32		130/3.67			0.43				40	351	85	5	[illegible]	[illegible]
2-14 1030	100 est.	60	6.0	59	1067	7.4[a]	91/4.54	25/2.08	97/4.22	7.2/0.18	0/0.00	296/4.86	114/2.37	114/3.21	40/0.64	1.0/0.05	0.33	25	PO_4 = 10 ppm; ABS Detergents 0.1ppm	661	43	331	80	30	70000 70000	
3-9 1015	100 est.	60	5.6	55	1174	7.3[a]	101/5.04	25/2.04	109/4.74	8.3/0.21	0/0.00	298/4.88	125/2.61	131/3.69	40/0.15	1.0/0.05	0.47	26	PO_4 = 9.0 ppm; ABS Detergents 1.14ppm	731	40	354	110	50	[illegible] [illegible]	
4-2 1050	45 est.	60	5.0	50	1120	7.4[a]	100/4.99	25/206	110/4.79	7.6/0.19	0/0.00	300/4.92	143/2.98	126/3.55	38/0.61	0.96/0.05	0.54	[illegible]	PO_4 = 8.0 ppm; ABS Detergents 1.24ppm	730	40	354	102	50	[illegible] 1300	
5-7 1100	30 est.	74	4.4	52	1134	7.4[a]	111/5.54	20/1.64	100/4.35	7.0/0.18	0/0.00	310/5.08	115/2.40	123/3.47	26/0.42	0.88/0.046	0.48	29	PO_4 = 15 As=0.00;ABS=0.92	705	37	359	105	<25	[illegible] 230	
6-4 1000	30 est.	68	4.4	48	1083	7.3			100/4.35		0/0.00	298/4.88		116/3.27			0.40				39	337	93	<25	[illegible] [illegible]	
7-5 1015	30 est.	70	4.8	57	1201	7.4[a]			112/4.87		0/0.00	301/4.94		145/4.09			0.32				40	361	114	<25	[illegible] 230	
8-1 0945	20 est.	70	6.4	71	1104	7.4[a]			102/4.44		0/0.00	293/4.80		117/3.30			0.44				41	300	80	30	[illegible] 2400	
9-10 0830	30 est.	68	5.2	57	1083	7.3[a]	88/4.39	24/1.97	105/4.57	9.0/0.23	0/0.00	298/4.88	113/2.36	119/3.36	22/0.36	0.86/0.05	0.52	30	PO_4 = 7.5 ABS=1.56;As=0.00	670	41	318	74	<25	150 [illegible]	
10-4 0815	25 est.	68	4.4	48	1154	7.3[a]			106/4.61		0/0.00	312/5.12		131/3.69			0.50		PO_4 = 3.0 ABS = 1.0		40	350	84	<25	230 230	
11-7 1030	30 est.	64	4.8	50	1190	7.3[a]	97/4.84	27/2.1[illegible]	105/4.57	9.1/0.23	0/0.00	310/5.08	118/2.46	128/3.61	20/0.33	1.1/0.06	0.39	34	PO_4 = 9.0 ABS = 1.05	759	41	351	87	<25	[illegible] [illegible]	
12-3 1050	25 est.	56	5.0	53	1174	7.3[a]			109/4.74		0/0.00	316/5.18		127/3.58			0.34		PO_4 = 6.8 ABS = 0.05		40	359	87	<25	[illegible] 230	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated

TABLE [illegible]

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

SANTA ANA RIVER BELOW PRADO DAM (STA. 51a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-2 0940	51	54	5.2	48	1105	7.4[e]	102 / 5.09	25 / 2.05	97 / 4.22	6.3 / 0.16	0 / 0.00	333 / 5.46	117 / 2.44	120 / 3.38	25 / 0.41	0.78 / 0.04	0.31	27	PO_4 = 0.25 ABs detergents 0.58	669	37	357	34	60	70000 24000	DWR
2-9 1145	571	56	- -	- -	615	7.1[b]	51 / 2.54	11 / 0.85	50 / 2.19	19 / 0.50	0 / 0.00	170 / 2.79	78 / 1.62	56 / 1.56	2 / 0.04	0.35 / 0.02	0.03	17	ABs detergents 0.48	677	38	355	57	300	13000 21000	LWR
2-14 0945	131	60	6.4	63	1084	7.3[e]	102 / 5.09	24 / 2.01	97 / 4.22	10 / 0.26	12 / 0.40	302 / 4.96	120 / 2.51	126 / 3.55	12 / 0.20	0.70 / 0.04	0.27	25	PO_4 = 4.0 ABs detergents 0.28	435	36	170	30	48		TTL
3-9 0900	70	56	64	61	1321	7.3[e]	104 / 5.19	29 / 2.35	102 / 4.44	8.8 / 0.23	0 / 0.00	329 / 5.40	128 / 2.66	125 / 3.53	25 / 0.40	0.90 / 0.05	0.25	28	PO_4 = 5.4 ABs detergents 0.42	716	37	377	107	70	2300 2300	DWR
4-2 0945	66	60	5.6	56	1089	7.4[e]	107 / 5.34	25 / 2.06	100 / 4.35	6.7 / 0.17	0 / 0.00	339 / 5.56	141 / 2.93	119 / 3.36	12 / 0.20	0.82 / 0.04	0.40	26	PO_4 = 4.0 ABs detergents 0.44	700	36	371	93	800	6200 2300	
5-7 120[illegible]	46	74	7.6	87	1122	7.6[e]	111 / 5.54	29 / 2.33	87 / 3.78	5.1 / 0.13	0 / 0.00	322 / 5.28	118 / 2.45	121 / 3.41	14 / 0.23	0.70 / 0.04	0.28	27	PO_4 = 3.0 ABs = 0.3 As = 0.00	681	32	374	110	<25	70000 70000	
6-4 0900	35	64	7.2	75	1080	7.5[e]	105 / 5.24	24 / 1.98	90 / 3.92	5.5 / 0.14	0 / 0.00	322 / 5.28	111 / 2.31	113 / 3.19	27 / 0.43	0.78 / 0.04	0.28	29	PO_4 = 4.0 ABs = 0.33	698	35	361	97	<25	600 2300	
7-5 0910	25	70	8.4	93	1091	7.6[e]	109 / 5.44	23 / 1.90	85 / 3.70	5.7 / 0.15	0 / 0.00	328 / 5.38	110 / 2.30	115 / 3.24	19 / 0.30	0.61 / 0.03	0.30	27	PO_4 = 3.6 ABs = 0.24	648	33	367	98	30	600 <450	
8-1 0800	20	64	8.4	88	1092	7.7[e]	102 / 5.09	25 / 2.06	88 / 3.83	5.4 / 0.14	24 / 0.80	276 / 4.52	105 / 2.19	116 / 3.27	12 / 0.19	0.80 / 0.04	0.31	28	PO_4 = 1.5 ABs = 0.34	655	34	356	90	42	230 620	
9-4 0830	17	66	8.0	85	1064	7.8[e]	106 / 5.29	24 / 1.97	90 / 3.92	5.0 / 0.13	0 / 0.00	327 / 5.36	111 / 2.31	117 / 3.30	12 / 0.19	0.60 / 0.03	0.32	28	PO_4 = 2.00 ABs = 0.36 As = 0.00	655	35	363	95	<25	60 230	
10-4 0720	42	66	8.0	85	1063	7.7[a]			87 / 3.78		0 / 0.00	320 / 5.24		120 / 3.38			0.29		PO_4 = 1.30 ABs = 0.30		34	367	105	<25	230 230	
11-7 0925	38	60	8.4	83.5	1087	7.6[e]	102 / 5.04	25 / 2.02	92 / 4.00	6.4 / 0.16	0 / 0.00	316 / 5.18	108 / 2.25	116 / 3.27	20 / 0.33	0.8 / 0.04	0.27	29	PO_4 = 3.6 ABs = 0.32	696	36	353	94	<25	620 230	
12-3 0945	40	56	9.2	87	1099	7.5[a]	104 / 5.19	24 / 1.99	91 / 3.96	6.1 / 0.16	0 / 0.00	316 / 5.18	111 / 2.31	116 / 3.27	24 / 0.39	0.7 / 0.04	0.31	32	NH_4 = 0 PO_4 = 3.6 ABs = 0.35	647	36	359	100	<25	<4.5 62	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

WARM CREEK NEAR COLTON (STA. 505)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-2 0830		60	9.3	92		7.4[a]																				
1-2 1 30		64	.6	90	976	7.5[a]	43/2.15	20/1.65	106/4.61	15/0.38	0/0.00	203/3.32	52/1.08	111/3.13	85/1.37	1.0/0.05	0.37	31	NH_4=12; PO_4=34 ABs detergents 6.2	581	49	190	24	< 24	130 230	DWR
1-2 1530		62	8.0	82		7.6[a]																				
2-15 0900	15 est.	67	8.0	87																						
2-15 1230	15 est	67	8.0	87	1071	7.0[b]	50/2.50	22/1.82	122/5.31	15/0.38	0/0.00	159/2.60	113/2.35	141/3.98	115/1.86	1.1/0.06	0.62	32	NH_4=1.0; PO_4=32 ABs detergent 4.0	643	55	216	96	< 25	<4.5 6	
3-5 0900		64	9.0	94		7.3[a]																				
3-5 1300		64	9.0	94	906	7.4[a]	46/2.30	18/1.50	91/3.96	14/0.36	0/0.00	207/3.40	48/0.99	94/2.65	74/1.20	0.8/0.04	0.38	29	NH_4=13.8; PO_4=33 ABs detergent 5.4	528	51	190	20	< 25	6. 62	
3-5 1700		65	9.0	95		7.3[a]																				
4-12 0830		72	8.0	92		7.4[a]																				
4-12 1230		76	7.6	90	1117	7.6[a]	71/3.54	14/1.15	130/5.66	15/0.38	0/0.00	220/3.60	85/1.77	158/4.46	73/1.18	3.2/0.17	0.51	32	NH_4=7.6; PO_4=31 ABs detergent 5.4	740	51	234	54	< 25	700 240	
4-12 1530		74	7.0	84		7.5[a]																				
9-2 0900		74	8.2	96	1146	7.5[a]	52/2.59	20/1.65	139/6.05	14/0.36	0/0.00	199/3.26	84/1.76	153/4.31	61/0.98	1.7/0.09	0.60	38	PO_4=30; ABs=5.1 As=0.00	709	57	212	49	< 25	62 <0.45	
9-2 1430		80				7.3[a]																				
[illegible] 0945		70	[illegible]	[illegible]		7.4[a]																				

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

WARM CREEK NEAR COLTON (STA. 50b) (continued)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
6-7 [illegible]		[illegible]	8.2	101	1090	7.3[a]	56 / 2.79	19 / 1.49	126 / 5.48	14 / 0.36	0 / 0.00	215 / 3.52	64 / 1.34	142 / 4.00	72 / 1.32	1.3 / 0.07	0.59	34	PO_4 = 35 ABs = 5.4	706	52	214	[illegible]	<25	[illegible]	[illegible]
6-7 [illegible]		[illegible]	8.2	92		7.4[a]																				
7-2 0715		72	7.[illegible]	[illegible]9		7.4[a]																				
7-2 1030		[illegible]2	8.0	101	819	7.0[a]	50 / 2.50	19 / 1.54	79 / 3.44	14 / 0.36	0 / 0.00	137 / 2.24	75 / 1.56	75 / 2.12	104 / 1.73	0.8 / 0.04	0.49	29	PO_4 = 36 ABs = 1.0	500	44	202	90	<	2-40	
7-2 1615		[illegible]0	8.2	101		8.2[a]																				
8-7 0715	3	74	8.6	100		7.5[a]																				
8-7 1245	11	84	9.0	118	1027	7.3[a]	60 / 2.99	9.2 / 0.76	119 / 5.18	13 / 0.33	0 / 0.00	195 / 3.20	77 / 1.61	118 / 3.33	71 / 1.15	1.16 / 0.06	1.00	33	NH_4=4.3; PO_4=28 ABs=4.5	625	55	1[illegible]7	27	<25	23 2.3	
8-7 1915	8	82	6.4	[illegible]1		7.4[a]																				
9-4 0715	3	72	7.6	87		7.2[a]																				
9-4 1150	12	80	8.4	104	775	7.3[a]	43 / 2.15	21 / 1.73	78 / 3.39	13 / 0.33	0 / 0.00	181 / 2.96	66 / 1.37	67 / 1.89	63 / 1.34	0.78 / 0.04	0.30	32	NH_4=2.0; As=0.00 PO_4=26; ABs=3.6	485	44	195	47	<25	2.3 [illegible]	
9-4 1530	11	80	7.8	96		7.3[a]																				
10-2 0715	3	77	7.0	84		7.5[a]																				
10-2 1155	11	81	9.6	118	947	7.4[a]	44 / 2.19	20 / 1.63	122 / 5.31	13 / 0.33	0 / 0.00	170 / 2.78	70 / 1.46	118 / 3.33	72 / 1.33	1.3 / 0.07	0.57	34	PO_4 = 23 ABs = 1.0	622	58	191	52	<25	>700 >700	
10-2	10	77	6.2	74		7.5[a]																				
11-7 0720	2.3	62	7.7	78		7.6[a]																				

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS) ; San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE B-17

ANALYSES OF SURFACE WATER

SANTA ANA REGION (NO. 8)

WARM CREEK NEAR COLTON (STA. 50b) (continued)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
11-[illegible] 1[illegible]	1	[illegible]	[illegible]	90	1[illegible]	[illegible][a]	[illegible]/[illegible]	19/1.[illegible]	120/[illegible].22	14/0.36	0/0.00	1[illegible]/3.0[illegible]	[illegible]1/1.4[illegible]	1[illegible]/3.[illegible]	[illegible]/1.40	1.3/0.0[illegible]	0.[illegible]	3[illegible]	PO_4 = 28 ABs = 3.1	663	55	212	53	<25	23	DWR
11-[illegible] 1[illegible]	1	[illegible]	[illegible].9	1		[illegible].4[g]																				
1[illegible]-1[illegible] [illegible]		[illegible]	[illegible].6	[illegible]		[illegible].4[g]																				
1[illegible]-1[illegible] 1[illegible]		[illegible]	[illegible]	[illegible]	49	[illegible][g]	[illegible]/[illegible].[illegible]	1/1.44	1/3.52	13/0.33	0/0.00	209/3.42	62/1.29	6[illegible]/1.[illegible]3	[illegible]/1.[illegible]	0.9/0.0[illegible]	0.34	28	ABs = 4.[illegible] NH_4 = 9/0.50	503	47	197	26	<25	0.6 2.3	
1-1[illegible] 1[illegible]		[illegible]	[illegible].8	[illegible]		7.3[g]																				

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

[illegible]

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]																										
[illegible]	Dry No flow																									
2-14 1200	1 est	63	10.0	108	110	7.4[a]	11 / 0.55	3 / 0.25	6 / 0.26	1.8 / 0.05	0 / 0.00	46 / 0.76	2.9 / 0.06	5 / 0.14	2.9 / 0.05	0.0 / 0.00	0.04	6	PO_4 = 0.6 ABS = 0.08	74	26	20	2	80	60 60	DWR
[illegible] 1000	Dry No flow																									
[illegible]	Dry No flow																									
[illegible]	Dry No flow																									
[illegible]	Dry No flow																									
[illegible]	Dry No flow																									
[illegible]	Dry No flow																									
[illegible] 1000	Dry No flow																									
10-2 1000	Dry No flow																									
11-7 [illegible]	Dry No flow																									
12-3 [illegible]	Dry No flow																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

TABLE B-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

ESCONDIDO CREEK AT HARMONY GROVE (STA. 63)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-9 1430	1-1/2 est	56	5.2	50	1852	7.0[a]			232 / 10.09		0 / 0.00	112 / 1.84		305 / 8.60			0.55				57	386	294	<25	230 230	DWR
3-3 0930	2 est.	63	6.4	56	1126	7.2[a]	84 / 4.19	41 / 3.41	213 / 9.27	13 / 0.33	0 / 0.00	194 / 3.18	226 / 4.71	295 / 8.32	45 / 0.73	0.5 / 0.02	0.53	24	PO_4 = 16 ABs detergents 1.8	1086	55	380	221	<25	6. 23	
5-2 12[illegible]	1 est.	74	7.2	83	2110	.5[a]	109 / 5.44	32 / 2.63	270 / 11.75	10 / 0.25	0 / 0.00	290 / 4.76	292 / 6.09	350 / 9.87	9.9 / 0.16	0.86 / 0.045	0.72	27	PO_4=21; As=0.00 ABs=3.0; NH_4=13	1257	56	402	164	50	13 62	
7-2 1210	1 est	4	9.2	10	1340	7.2[a]			225 / 9.79		0 / 0.00	133 / 3.07		272 / 7.67			0.61		4.0		56	377	223	<25	62 700	
9-6 1300	2 est	[illegible]	5.2	61	194[illegible]	7.3[a]	80 / 3.99	46 / 3.78	268 / 11.66	19 / 0.49	0 / 0.00	234 / 3.84	321 / 6.68	362 / 10.21	24 / 0.39	1.36 / 0.07	0.60	23	NH_4 = 2 PO_4 = 20 ABs = 3.5	1185	57	390	199	<25	230 620	
11-[illegible] 1255	2 est	72	4.4	50	2099	7.2[a]			253 / 11.00		0 / 0.00	2.71 / 4.44		340 / 9.59					PO_4 = 39.0 ABs = 3.3		57	411	139	<25	230 620	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE [illegible]

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

FORESTER CREEK AT MISSION GORGE ROAD (STA. 65a)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-[illegible] [illegible]	[illegible] est.	[illegible]	[illegible]	52	2096	7.4[a]			245 / 10.[illegible]		0 / 0.00	3[illegible]0 / 5.90		290 / [illegible]		0.63					[illegible]	437	142	<[illegible]	[illegible]	[illegible]
2-[illegible] 1300	[illegible] est	[illegible]1	[illegible].0	[illegible]	666	7.4[a]	37 / 1.8[illegible]	17 / 1.41	[illegible] / 2.3[illegible]	5.[illegible] / 0.15	0 / 0.00	[illegible]2 / 1.15	31 / 1.65	103 / 3.05	14 / 0.23	0.3 / 0.01	0.10	10	PO_4 = 1.0 ABs detergents 0.39	429	47	163	164	[illegible]	[illegible] / 13000	
7-[illegible] 2530	Dry No flow																									
7-2 1425	Dry No flow																									
9.6 0950	Dry No flow																									
11-[illegible] 1105	Dry No flow																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE [illegible]

TABLE [illegible]-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SAN DIEGO RIVER AT MISSION GORGE ROAD (STA. 65c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1[illegible]																										
7-[illegible] 13[illegible]	[illegible]	62	7.6	94	2132	7.3[a]	90 / 4.49	48 / 3.91	269 / 11.70	18 / 0.46	0 / 0.00	223 / 3.74	337 / 7.03	317 / 8.94	132 / 2.13	0.66 / 0.03	0.66	23	NH_4 = 7.2 PO_4 = 38 ABs = 5.0	1280	54	420	223	<25	2300 230	DWR
2-[illegible] [illegible]15	[illegible] est	[illegible]	9.6	[illegible]	2415	7.4[a]	90 / 4.50	46 / 3.77	313 / 13.[illegible]3	18 / 0.46	0 / 0.00	376 / 6.16	346 / 7.20	294 / 11.11	5.0 / 0.07	1.48 / 0.08	0.64	22	NH_4 = 41 PO_4 = 22 ABs = 5.6	1380	55	420	112	<25	60 1,00	
11-[illegible] 1009	[illegible] est	70	9.6	6[illegible]	21[illegible]	7.3[a]	8[illegible] / 4.34	4[illegible] / 3.34	253 / 11.01	18 / 0.46	0 / 0.00	30[illegible] / 5.04	333 / 6.94	324 / 9.13	66 / 1.07	1.1 / 0.06	0.74	39	NH_4 = 22/1.23 PO_4 = 35 ABs = 4.2	1275	53	409	157	<25	5.6 62.4	

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR); as indicated.

32505-D-H 6-61 200 SPO

TABLE [illegible]

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SAN DIEGO RIVER AT OLD MISSION DAM (STA. 65)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
[illegible]																										
1-[illegible] [illegible]	[illegible] est.	[illegible]	[illegible]	[illegible]	21[illegible]	7.3[a]			272 / 11.83		0 / 0.00	321 / 5.26		333 / 9.39			0.57		PO_4 = 21 ABS detergents=5.0		61	381	118	<25	230 650	DWR
[illegible] [illegible]	[illegible] est.	[illegible]			540	[illegible]4[b]	33 / 1.66	16 / 1.26	57 / 2.47	10 / 0.26	0 / 0.00	86 / 1.42	70 / 1.46	85 / 2.40	11 / 0.17	0.4 / 0.02	0.20	13		384	45	146	75	Turbid		[illegible]
[illegible] 1233	[illegible] est.	[illegible]	[illegible]	41	[illegible]	7.5[a]	71 / 3.54	41 / 3.33	192 / 8.35	7.0 / 0.18	0 / 0.00	130 / 3.02	226 / 4.71	261 / 7.36	25 / 0.40	0.5 / 0.02	0.36	23	PO_4 = 4.4 ABS detergents 1.44	946	55	346	192	100	23 23	DWR
[illegible] 1[illegible]	1/[illegible] est.	[illegible]	[illegible]	1.9	235	[illegible].2[a]	126 / 6.29	38 / 3.12	306 / 13.31	7.6 / 0.19	0 / 0.00	364 / 5.96	218 / 4.54	460 / 12.97	5.0 / 0.08	0.76 / 0.04	0.48	16	PO_4=7.0; NH_4=0.0 ABS=1.1; As=0.00	1402	58	471	173	90	62 240	DWR
[illegible]-[illegible] 141[illegible]	No inflow Pond not sampled																									
[illegible]-6 [illegible]	No inflow Pond not sampled																									
11-[illegible]	No inflow Pond not sampled																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), [illegible] States Agricultural Consultants and Laboratories (USACL) as indicated

325D5-D-H 6-61 200 SPO

TABLE B-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SAN DIEGUITO RIVER NEAR SAN PASQUAL (STA. 64)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
1962																										
1-2 1350	Dry No flow																									
3-8 0740	Dry No flow																									
5-9 1255	Dry No flow																									
7-2 1300	Dry No flow																									
9-6 1220	Dry No flow																									
11-8 1240	Dry No flow																									

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SAN LUIS REY RIVER NEAR PALA (STA. 62)

Date and time sampled PST	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1-[illegible]2																										
1-[illegible] 1[illegible]-5	Dry No flow																									
[illegible] 14[illegible]	1/20 est	50	- -	- -	785	7.7[b]	73 / 3.[illegible]4	27 / 2.24	57 / 2.47	0.15 / 6.0	0 / 0.00	155 / 2.55	198 / 4.13	55 / 1.56	0 / 0.00	0.3 / 0.02	0.05	33		610	29	294	166	Clear		USACL
[illegible] [illegible]	Dry No flow																									
[illegible]-9 111[illegible]	Dry No flow																									
[illegible] 11[illegible]	Dry No flow																									
9-[illegible] 13[illegible]	Dry No flow																									
11-[illegible] 13[illegible]	Dry No flow																									

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); United States Agricultural Consultants and Laboratories (USACL) as indicated

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TABLE B-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SANTA MARGARITA RIVER NEAR FALLBROOK (STA. 51c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25° C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-2 1230	10 est.	50	9.2	82	1199	7.9[a]			128 / 5.57		13 / 0.44	316 / 5.18		144 / 4.06			0.22				45	32[illegible]	5[illegible]	<[illegible]	6.2 / 2.[illegible]	[illegible]
3-8 1015	8.6	54	9.0	4	1167	7.5[a]			120 / 5.22		17 / 0.56	246 / 4.04		151 / 4.26			0.17				44	33[illegible]	1[illegible]	<[illegible]	[illegible] / 2.[illegible]	
5-9 1010	3.3	70	7.2	9	12[illegible]	[illegible].8[a]	107 / 5.34	27 / 2.22	125 / 5.44	3.2 / 0.08	0 / 0.00	364 / 5.96	142 / 2.96	158 / 4.46	0 / 0.00	0.64 / 0.03	0.20	32	PO_4 = 0.2 As = 0.00	[illegible]9	40	[illegible]	[illegible]	<[illegible]	[illegible]6.2 / [illegible]	
7-2 1130	1/4 est.	80	9.6	118	1323	7.8[a]			136 / 5.92		17 / 0.56	351 / 5.75		167 / 4.7[illegible]			0.25				44	359	63	30		
9-6 1420	No inflow Pond not sampled																									
11-3	6 est.	60	8.0	79.5		7.[illegible][a]	86 / 4.29	31 / 2.51	122 / 5.31	4.3 / 0.11	0 / 0.00	354 / 5.80	116 / 2.42	140 / 3.95	2.6 / 0.09	0.[illegible] / 0.04	0.21	34	PO_4 = 1.[illegible]	765	29	240	[illegible]	<[illegible]	1[illegible]	

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE 6-13

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

SPRING VALLEY CREEK NEAR LA PRESSA (STA. 65b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
							Mineral constituents in parts per million / equivalents per million																			
1962																										
1-2 1730	4 est.	60	6.4	70	2509	7.0[a]	94 / 4.69	60 / 4.93	343 / 15.14	1[e] / 0.35	0 / 0.00	366 / 7.00	379 / 7.89	422 / 11.90	0.6 / 0.01	3.9 / 0.21	1.07	28	NH_4 = 31	1576	61	481	181	90	<45 <45	DWR
3-7 1900	3 est	6[illegible]	6.0	6[illegible]	111[illegible]	7.4[a]	53 / 2.64	27 / 2.24	133 / 5.79	4.0 / 0.10	0 / 0.00	120 / 1.96	132 / 2.75	194 / 5.47	55 / 0.90	0.3 / 0.01	0.17	0		684	54	244	146	700	2400 7000	
5-9 1445	3 est	5[illegible]	7.2	91	2[illegible]99	7.3[a]	159 / 7.93	43 / 3.53	371 / 16.14	14 / 0.36	0 / 0.00	331 / 6.24	411 / 8.57	520 / 14.66	5.2 / 0.09	0.63 / 0.035	1.09	24	NH_4 = [illegible]; As=0.00 PO_4=41; ABs=7.2	1759	55	575	263	60	<45 <45	
7-8 1535	3 est	30	[illegible]	100	2503	7.2[a]			347 / 15.09		0 / 0.00	301 / 5.03		391 / 11.03			1.33		PO_4 = 57 ABs = 12.2		62	462	208	35	6 6	
9-[illegible] 1945	3 est	32	.	11[illegible]	2065	7.5[a]	105 / 5.24	71 / 5.84	365 / 15.33	18 / 0.46	0 / 0.00	476 / 7.80	403 / 8.40	508 / 14.33	2.5 / 0.04	0.42 / 0.02	0.64	28	PO_4 = 25 ABs = 8.6	1685	52	551	161	75	>700 >700	
11-9 1105	3 est	76	9.[illegible]	113	2904	7.3[a]	113 / 5.64	79 / 5.76	334 / 14.53	17 / 0.44	0 / 0.00	415 / 6.80	378 / 7.88	504 / 14.21	0 / 0.00	0.6 / 0.03	0.85	48	PO_4 = 30 ABs = 5.7	1690	50	570	230	100	230 230	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); as indicated.

32505-0-B 6-62 200 SPO

TABLE 8-18

ANALYSES OF SURFACE WATER

SAN DIEGO REGION (NO. 9)

TIA JUANA RIVER AT INTERNATIONAL BOUNDARY (STA. 66)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million / equivalents per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$		Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents			Total ppm	N C ppm			
[illegible]																										
[illegible]	Dry No flow																									
[illegible]-7 [illegible]	Dry No flow																									
5-9 [illegible]	Dry No flow																									
7-[illegible] [illegible]	Dry No flow																									
9-[illegible] [illegible]	Dry No flow																									
1- [illegible]	Dry No flow																									

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE B-19
SPECTROGRAPHIC ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (No. 1)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Klamath River below Iron Gate Dam	1f	5/16	12	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	20	20*	1.0*	5.0*	1.0*	1.4	9.5	2.0*	1.0*	20*
		9/13	3.3*	1.3*	0.67*	3.3*	20	3.3*	3.3*	28	13*	0.67*	3.3*	0.67*	0.67*	3.3*	1.3*	8.7	13*
Klamath River at Somesbar	2	5/8	5.0	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	13	20*	1.0*	5.0*	1.0*	3.4	5.0*	2.0*	1.4	20*
		9/4	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	12	13*	0.67*	3.3*	0.67*	2.6	3.3*	1.3*	2.7	13*
Klamath River near Seiad Valley	2b	5/16	9.4	1.0*	1.0*	5.0*	70	5.0*	5.0*	15	20*	1.0*	5.0*	1.0*	4.9	12	2.0*	1.0	20*
		9/13	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	10	13*	0.67*	3.3*	0.67*	1.7	3.3*	1.3*	4.0	13*
Klamath River near Klamath	3	5/10	6.5	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	12	20*	1.0*	5.0*	1.0*	2.8	5.0*	2.0*	1.9	20*
		9/7	8.0	1.3*	0.67*	3.3*	5.1	3.3*	3.3*	8.0	13*	0.67*	3.3*	0.67*	3.3	3.3*	1.3*	2.1	13*
Trinity River near Hoopa	4	5/8	5.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.0	20*	1.0*	5.0*	1.0*	1.4	5.0*	2.0*	1.1	20*
		9/4	21	1.3*	0.67*	3.3*	16	3.3*	3.3*	10	13*	0.67*	3.3*	0.67*	2.6	3.3*	1.3*	0.67*	13*
Eel River, Middle Fork at Dos Rios	5c	5/10	8.4	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	14	20*	1.0*	5.0*	1.0*	1.4	9.5	2.0*	1.0*	20*
		9/12	16	1.3*	2.5	3.3*	19	3.3*	3.3*	13	13*	0.67*	3.3*	1.6	2.6	3.3*	1.3*	0.67*	13*
Eel River at Scotia	6	5/8	123	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	20	20*	1.0*	5.0*	1.0*	37	5.0*	2.0*	1.0*	20*
		9/6	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	6.0	13*	0.61*	3.3*	0.67*	1.9	3.3*	1.3*	0.67*	13*
Mad River near Arcata	6a	5/10	21	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	39	20*	1.0*	5.0*	1.0*	1.8	5.0*	2.7	1.0*	20*
		9/5	7.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	9.3	13*	0.67*	3.3*	0.67*	1.5	3.3*	1.3*	0.67*	13*
Russian River at Guerneville	10	5/8	5.2	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	3.2	20*	1.0*	5.0*	1.0*	1.5	5.0*	2.0*	1.7	20*
		9/11	3.6	1.3*	4.3	3.3*	70	3.3*	3.3*	23	13*	0.67*	3.3*	0.67**	4.4	3.3*	1.3*	0.67*	13*

* Results are less than the figure listed.

** Results are equal to but slightly less than the figure listed.

TABLE

TABLE B-20

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

SAN FRANCISCO BAY REGION (No. 2)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Napa River near St. Helena	72	5/8	3.8	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	6.6	20*	1.0*	5.0*	1.0*	1.6	5.0*	2.0*	2.4	20*
		9/13	5.4	1.3*	1.3*	3.3*	22	3.3*	3.3*	26	13*	0.67*	3.3*	0.80	8.7	3.3*	1.3*	0.67*	13*
Alameda Creek near Niles	73	5/4	4.2	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.0	20*	1.0*	5.0*	1.0*	1.1	5.0*	2.0*	1.4	20*
		9/6	101	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	207	13*	0.67*	70	0.67*	0.67*	3.3*	1.3*	6.0	13*
Coyote Creek near Madrone	82	5/2	22	1.0*	1.0*	12	5.0*	12	5.0*	50	20*	1.0*	5.0*	1.0*	3.8	5.0*	2.0*	1.[illegible]	20*

* Results are less than the figure listed.

TABLE B-21

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

CENTRAL COASTAL REGION (No. 3)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Salinas River near Spreckels	43	5/3	4.0	1.0*	1.0*	5.0*	5.0*	5.0*	12	10	20*	1.0*	5.0*	6.8	5.8	8.3	2.0*	3.8	20*
		9/6	8.7	1.3*	1.2	3.3*	20	3.3*	33	30	13*	0.67*	103	8.0	10	3.3*	1.3*	1.2	13*
Nacimiento River near San Miguel	43b	9/5	100***	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	237	13*	0.67*	3.3*	0.67*	3.9	3.3*	1.3*	0.67*	13*
Santa Ynez River near Solvang	45a	5/1	10	1.0*	1.0*	5.0*	5.0*	5.0*	16	4.0	20*	1.0*	5.0*	1.7	1.6	5.0*	2.0*	1.8	20*
Pajaro River near Chittenden	77	5/3	8.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	9.6	20*	1.0*	5.0*	1.0*	4.0	5.0*	2.0*	2.8	20*
		9/5	3.3*	1.3*	0.67*	3.3*	13	3.3*	3.3*	4.9	13*	0.67*	3.3*	2.6	3.4	3.3*	1.3*	0.67*	13*

* Results are less than the figure listed.

*** Results are greater than the figure listed.

TABLE B-22

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

LOS ANGELES REGION (No. 4)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Santa Clara River at Los Angeles - Ventura County Line	46	5/3	8.0	1.0*	1.0*	5.0*	5.0*	5.0*	18	5.0	20*	1.0*	5.0*	1.0*	2.0	5.0*	20*	1.7	50*
		9/10	7.1	0.57*	1.6	1.4*	28	1.4*	1.4*	30	5.7*	0.29*	1.4*	5.4	10	1.4*	0.57*	0.29*	5.7
Santa Clara River near Santa Paula	46a	5/3	7.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	11	20*	1.0*	5.0*	1.0*	2.0	5.0*	20*	2.0	50*
		9/11	1.4*	0.57*	2.5	1.4*	25	1.4*	1.4*	19	5.7*	0.29*	1.4*	29***	1.6	1.4*	0.57*	0.29*	5.7*
Los Angeles River at Long Beach	48	5/8	10	1.0*	1.0*	5.0*	10	5.0*	22	100***	20*	1.0*	215	1.0*	1.0	5.0*	20*	2.7	50*
		9/7	11	0.57*	0.29*	1.4*	11	1.4*	1.4*	22	5.7*	0.29*	47	5.1	3.4	1.4*	0.57*	0.29*	5.7*
Rio Hondo at Whittier Narrows	49	5/8	9.0	1.0*	1.0*	5.0*	5.0*	5.0*	11	3.8	20*	1.0*	5.0*	1.1	1.7	5.0*	20*	7.4	50*
		9/13	4.6	0.57*	0.29*	1.4*	2.6	1.4*	1.4*	12	5.7*	0.29*	1.4*	8.3	7.1	1.4*	0.57*	2.5	5.7*
Mission Creek at Whittier Narrows	49a	5/8	9.4	1.0*	1.0*	5.0*	5.0*	5.0*	7.9	5.0	20*	1.0*	5.0*	1.0*	2.0	5.0*	20*	2.0	50*
		9/13	11	0.57*	28***	1.4*	189	1.4*	1.4*	13	5.7*	0.29*	1.4*	7.1	7.1	1.4*	0.57*	2.5	5.7*
San Gabriel River at Whittier Narrows	50	5/8	12	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.6	20*	1.0*	5.0*	1.0*	1.1	5.0*	20*	5.8	50*
		9/13	4.9	0.57*	0.3	1.4*	189	1.4*	12	6.6	5.7*	0.29*	1.4*	4.3	7.4	1.4*	0.57*	1.[illegible]	5.7*
Ventura River near Ventura	61	5/3	12	1.0*	1.0*	5.0*	5.0*	5.0*	15	4.5	20*	1.0*	5.0*	1.0*	2.0	5.0*	20*	1.5	50*
		9/11	1.4*	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	5.1	5.7*	0.29*	1.4*	2.4	2.8	1.4*	2.1	0.29*	5.7*

* Results are less than the figure listed.
*** Results are greater than the figure listed.

TABLE B-22

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Sacramento River at Keswick	12	5/1	40	1.0*	1.0*	5.0*	5.0*	5.0*	9.6	60	20*	1.0*	8.0	1.0*	1.6	10	2.0*	2.0	20*
		9/8	38	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	45	13*	0.67*	3.3*	0.67*	1.7	3.3*	1.3*	1.8	13*
Sacramento River at Bend	12c	5/3	29	1.0*	1.0*	5.0*	5.0*	5.0*	8.4	35	20*	1.0*	5.0*	1.0*	1.6	5.0*	2.0*	2.0	20*
		9/11	13	1.3*	0.67*	3.3*	8.7	3.3*	3.3*	13	13*	0.67*	3.3*	0.67*	3.0	3.3*	1.3*	1.9	13*
Sacramento River near Hamilton City	13	5/14	29	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	27	20*	1.0*	5.0*	1.0*	1.2	5.0*	2.0*	2.6	20*
		9/20	21	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	3.3*	0.67*	1.5	3.3*	1.3*	2.1	13*
Stony Creek near Hamilton City	13a	5/14	7.8	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	3.6	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.9	20*
Sacramento River at Colusa	13b	5/7	18	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	23	20*	1.0*	5.0*	1.0*	9.0	5.0*	2.7	3.0	20*
		9/19	6.0	1.3*	0.67*	3.3*	23	3.3*	3.3*	12	13*	0.67*	3.3*	0.67*	2.3	3.3*	1.3*	1.9	13*
Sacramento River above Colusa Trough	14b	5/7	28	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	44	20*	1.0*	5.0*	1.0*	1.2	5.0*	2.3	4.1	20*
		9/19	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	7.3	13*	0.67*	3.3*	0.67*	2.5	3.3*	1.3*	3.7	13*
Sacramento River at Freeport	15b	5/8	16	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	32	20*	1.0*	5.0*	1.0*	1.2	5.0*	2.0*	2.6	20*
		9/5	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	7.3	13*	0.67*	3.3*	0.87	2.5	3.3*	1.3*	3.5	13*
Sacramento River at Rio Vista	16	5/3	22	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	40	20*	1.0*	5.2	1.0*	1.8	9.0	2.0*	2.2	20*
		9/5	15	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	3.3*	0.67**	2.7	3.3*	1.3*	3.1	13*
Pit River near Canby	17a	5/2	255	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	100***	20*	1.0*	5.0*	1.0*	1.4	10	9.8	15	20*
		9/17	113	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	167	13*	0.67*	3.3*	2.4	3.5	3.3*	4.1	7.3	13*
Feather River near Oroville	19	5/9	20	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	46	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.0	20*
		9/11	13	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	36	13*	0.67*	3.3*	0.67*	1.5	3.3*	1.3*	1.5	13*
Feather River at Nicolaus	20	5/15	11	1.0*	1.0*	5.0*	8.4	5.0*	5.0*	27	20*	1.0*	5.0*	1.0*	1.4	17	2.0*	1.6	20*
		9/10	16	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	39	13*	0.67*	16	0.67*	2.2	3.3*	1.3*	1.7	13*
Yuba River at Marysville	21	5/15	24	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	32	20*	1.0*	5.0*	1.0*	1.7	14	2.0*	1.0	20*
		9/10	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	39	13*	0.67*	8.0	0.67*	1.9	3.3*	1.3*	1.1	13*
American River at Sacramento	22	5/10	10	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	15	20*	1.0*	5.0*	1.0*	7.6	9.0	2.0*	1.0*	20*
		9/11	25	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	29	13*	0.67*	3.3*	0.67*	23	3.3*	1.3*	0.67*	13*
American River at Nimbus Dam	22a	5/10	12	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	12	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.0*	20*
		9/11	17	1.3*	0.67*	3.3*	21	3.3*	3.3*	21	13*	0.67*	3.3*	0.67*	2.2	3.3*	1.3*	0.67*	13*
Mokelumne River at Woodbridge	23	5/10	24	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	46	20*	1.0*	5.0*	1.0*	1.0	5.0*	2.0	1.0*	20*
		9/6	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	23	13*	0.67*	3.3*	0.67**	2.5	3.3*	1.3*	2.7	13*
San Joaquin River at Fremont Ford Bridge	25c	5/1	4.1	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.6	20*	1.0*	5.0*	1.0*	2.2	5.0*	2.0*	2.8	20*
		9/7	3.3*	1.3*	1.9	3.3*	27	3.3*	3.3*	6.7	13*	0.67	3.3*	6.0	2.7	3.3*	1.3*	6.2	13*
San Joaquin River near Vernalis	27	5/1	7.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	12	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	3.2	20*
		9/6	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	13	13*	0.67*	3.3*	2.9	0.67*	3.3*	1.3*	0.67*	13*
Stanislaus River near Mouth	29	5/1	5.3	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	12	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	3.0	20*
		9/6	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	9.3	13*	0.67*	3.3*	1.9	0.67*	3.3*	1.3*	0.67*	13*

* Results are less than the figure listed.
** Results are equal to but slightly less than the figure listed.
*** Results are greater than the figure listed.

TABLE B-23

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

CENTRAL VALLEY REGION (No. 5) (Continued)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Tuolumne River at Tuolumne City	31	5/9	3.8	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	7.0	20*	1.0*	5.0*	1.0*	2.4	5.0*	2.0*	1.0*	20*
		9/7	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	23	13*	0.67*	3.3*	0.67*	0.67*	3.3*	1.3*	0.67*	13*
Merced River near Stevinson	32	5/1	4.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	7.8	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	3.4	20*
		9/	6.0	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.0	13*	0.67*	3.3*	1.9	0.80	3.3*	1.3*	2.1	13*
Kings River below People's Weir	34	5/8	18	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	32	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.2	20*
		9/5	16	1.3*	16	3.3*	207	3.3*	3.3*	40	13*	0.67*	3.3*	2.0*	15	3.3*	1.3*	0.67*	13*
Kern River near Bakersfield	36	5/8	38	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	76	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.9	20*
		9/5	8.7	1.3*	3.1	3.3*	3.3*	3.3*	3.3*	8.0	13*	0.67*	3.3*	4.8	0.67**	3.3*	1.3*	0.67*	13*
Clear Lake at Lakeport	41	5/2	6.5	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	8.6	20*	1.0*	5.0*	1.0*	1.2	8.3	2.0*	8.6	20*
		9/4	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	6.0	13*	0.67*	3.3*	0.67**	3.5	3.3*	1.3*	1.9	13*
Cache Creek near Lower Lake	42	5/2	3.4	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	8.6	20*	1.0*	5.0*	1.0*	1.3	10	2.0*	1.5	20*
		9/4	12	1.3*	0.67*	3.3*	5.2	3.3*	3.3*	11	13*	0.67*	3.3*	0.93	2.1	3.3*	1.3*	3.9	13*
Bear River near Wheatland	78	5/15	7.6	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	13	20*	1.0*	5.0*	1.0*	1.4	14	2.0*	1.0*	20*
		9/10	3.3*	1.3*	0.67*	3.3*	28	3.3*	3.3*	13	13*	0.67*	3.3*	0.67*	0.67*	3.3*	1.3*	0.67*	13*
Cache Creek near Capay	80	5/2	14	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	13	20*	1.0*	5.0*	1.0*	2.1	5.0*	2.0*	2.2	20*
		9/4	12	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	133	13*	0.67*	3.3*	0.67*	1.6	3.3*	1.3*	0.67	13*
Putah Creek near Winters	81	5/3	9.4	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	7.0	20*	1.0*	5.0*	1.0*	1.8	5.0*	2.0*	2.6	20*
		9/4	15	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.0	13*	0.67*	3.3*	0.67**	4.6	3.3*	1.3*	1.6	13*
Tule River below Success Dam	91	5/10	9.4	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	20	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	1.6	20*
		9/13	11	1.3*	7.3	3.3*	3.3*	3.3*	3.3*	4.4	13*	0.67*	3.3*	1.4	1.6	3.3*	1.3*	1.3	13*
Delta-Mendota Canal near Mendota	92	5/1	105	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	75	20*	1.0*	5.0*	1.0*	2.9	5.0*	3.4	4.2	20*
		9/7	26	1.3*	10	3.3*	73	3.3*	3.3*	15	13*	0.67*	3.3*	2.3	4.2	3.3*	1.3*	4.6	13*
Delta-Mendota Canal near Tracy	93	5/8	14	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	24	20*	1.0*	5.0*	1.0*	1.2	6.8	2.0*	4.8	20*
		9/6	47	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	29	13*	0.67*	3.3*	1.5	3.7	3.3*	1.3*	5.3	13*
Cosumnes River at McConnell	94a	5/10	12	1.0*	1.0*	5.0*	19	5.0*	5.0*	90	20*	1.0*	5.0*	1.0*	1.4	5.0*	2.0*	1.4	20*
Delta Cross Channel near Walnut Grove	98	5/9	16	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	100***	20*	1.0*	5.0*	1.0*	8.0	5.0*	2.0*	2.8	20*
		9/4	13	1.3*	29	3.3*	133***	3.3*	3.3*	6.7	13*	0.67*	3.3*	0.80	1.4	3.3*	1.3*	3.9	13*
Old River at Mandeville Island	112	5/7	36	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	60	20*	1.0*	5.0*	1.0*	2.6	5.0*	2.0*	3.4	20*
		9/6	40	1.3*	0.67*	3.3*	13	3.3*	3.3*	29	13*	0.67*	3.3*	1.1	3.7	3.3*	1.3*	5.2	13*

* Results are less than the figure listed.
** Results are equal to but slightly less than the figure listed.
*** Results are greater than the figure listed.

TABLE B-24

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

LAHONTAN REGION (No. 6)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Lake Tahoe at Tahoe City	38	5/9	12	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	6.2	20*	1.0*	5.0*	1.0*	1.7	5.0*	2.0*	1.2	20*
		9/12	17	1.3*	0.67*	3.3*	12	3.3*	3.3*	8.0	13*	0.67*	3.3*	3.1	0.67*	3.3*	1.3*	0.67*	13*
Truckee River near Farad	53	5/11	44	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	41	20*	1.0*	5.0*	1.0*	1.0*	12	2.0*	1.3	20*
		9/14	8.0	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	13	5.7*	0.29*	1.4*	1.3*	0.60	1.4*	0.57*	0.77	5.7*
Mojave River near Victorville	67	5/14	5.7	1.0*	1.0*	5.0*	5.0*	5.0*	8.4	4.8	20*	1.0*	5.0*	1.0*	1.0*	5.0*	2.0*	3.1	20*
		9/12	9.1	0.57*	0.29*	1.4*	11	1.4*	1.4*	12	5.7*	0.29*	1.4*	2.5	1.7	1.4*	0.57*	3.4	5.7*

* Results are less than the amount indicated.

TABLE B-25

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN REGION (No. 7)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Colorado River at Yuma	56	5/16	11	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	7.8	20*	1.0*	5.0*	1.0*	1.6	5.0*	2.0*	2.5	20*
		9/5	5.7	0.57*	26	1.4*	66	1.4*	1.4*	5.4	5.7*	0.29*	1.4*	12	5.1	1.4*	0.57*	1.7	5.7*

* Results are less than the figure listed.

TABLE B-26

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

SANTA ANA REGION (No. 8)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Warm Creek near Colton	50b	5/2	14	1.0*	1.0*	5.0*	5.0*	5.0*	62	33	20*	1.0*	27	1.0*	61	5.0*	3.4	4.2	20*
		9/4	32	0.57*	0.29*	13	1.4*	1.4*	26	67	5.7*	0.29*	14	6.0	29***	1.4*	0.57*	1.4	5.7*
Santa Ana River near Arlington	51	5/2	9.0	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	4.0	20*	1.0*	5.0*	1.0*	1.0	5.0*	2.0*	4.8	20*
		9/12	1.4*	0.57*	0.29*	1.4*	P	1.4*	1.4*	P	5.7*	0.29*	1.4*	P	0.29*	1.4*	0.57*	0.29*	5.7*
Santa Ana River below Prado Dam	51a	5/7	41	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.0	20*	1.0*	5.0*	1.0*	1.4	5.0*	2.0*	8.7	20*
		9/4	8.0	0.57*	0.29*	1.4*	4.9	1.4*	1.4*	10	5.7*	0.29*	1.4*	4.3	10	1.4*	0.57*	4.3	5.7*
Santa Ana River near Norco	51e	5/7	7.7	1.0*	1.0*	5.0*	5.0*	5.0*	28	4.5	20*	1.0*	120	1.4	2.4	5.0*	2.0*	2.4	20*
		9/12	11	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	27	5.7*	0.29*	1.4*	3.1	5.4	1.4*	0.57*	1.3	5.7*

P Present in sample not determined quantitatively.
* Results are less than the figure listed.
*** Results are greater than the figure listed.

TABLE P-27

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

SAN DIEGO REGION (No. 9)

Station	Sta No	Date 1962	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Escondido Creek at Harmony Grove	63	5/9	6.0	1.0*	1.0*	5.0*	5.0*	5.0*	25	13	20*	1.0*	135	1.0*	16	5.0*	2.0*	3.2	20*
		9/6	18	0.57*	0.29*	1.4*	1.4*	1.4*	1.4*	30	5.7*	0.29*	69	5.7	29***	1.4*	0.57*	0.29*	5.7*
San Diego River at Old Mission Dam	65	5/9	10	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	5.6	20*	1.0*	5.0*	1.0*	2.4	14	2.0*	15	20*

* Results are less than the figure listed.
*** Results are greater than the figure listed.

TABLE B-28

TABLE B-28

RADIOASSAY OF SURFACE WATERS

NORTH COASTAL REGION (NO. 1)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
1A	Shasta River	Yreka	5/16	0.0 ± 0.1	0.0 ± 0.2	4.6 ± 4.7	0.5 ± 4.6
			9/13	0.2 ± 0.2	0.1 ± 0.1	8.1 ± 4.7	2.6 ± 4.6
1B	Scott River	Fort Jones	5/15	0.1 ± 0.2	0.0 ± 0.2	0.4 ± 4.7	1.9 ± 4.7
			9/13	0.0 ± 0.1	0.0 ± 0.1	4.0 ± 4.9	0.0 ± 4.8
1C	Klamath River	abv Hamburg Res	5/16	0.0 ± 0.2	0.0 ± 0.2	3.9 ± 4.8	0.0 ± 4.7
			9/13	0.0 ± 0.2	0.0 ± 0.2	11.0 ± 4.9	4.8 ± 4.8
1D	Butte Creek	Macdoel	5/15	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.6
			9/12	0.0 ± 0.1	0.0 ± 0.2	3.9 ± 4.7	2.5 ± 4.7
1E	Antelope Creek	Tennant	5/15	0.1 ± 0.2	0.0 ± 0.2	3.7 ± 4.7	1.3 ± 4.6
			9/12	0.1 ± 0.2	0.0 ± 0.1	3.0 ± 4.7	0.0 ± 4.6
1F	Klamath River	Iron Gate Dam	5/16	0.0 ± 0.2	0.0 ± 0.2	5.9 ± 4.7	5.6 ± 4.7
			9/13	0.2 ± 0.2	0.0 ± 0.1	5.3 ± 4.8	0.0 ± 4.7
2	Klamath River	Somesbar	5/8	0.1 ± 0.2	0.0 ± 0.2	1.1 ± 4.5	1.3 ± 4.5
			9/4	0.1 ± 0.2	0.1 ± 0.2	9.6 ± 4.7	0.0 ± 4.5
2A	Salmon River	Somesbar	5/8	0.1 ± 0.2	0.0 ± 0.2	0.4 ± 4.4	2.8 ± 4.5
			9/4	0.2 ± 0.2	0.0 ± 0.2	2.5 ± 4.8	2.3 ± 4.8
2B	Klamath River	Seiad Valley	5/16	0.1 ± 0.2	0.0 ± 0.2	3.4 ± 4.7	2.0 ± 4.6
			9/13	0.0 ± 0.1	0.0 ± 0.1	4.3 ± 4.8	0.6 ± 4.8
3	Klamath River	Klamath	5/10	0.1 ± 0.2	0.0 ± 0.2	5.9 ± 4.7	7.1 ± 4.7
			9/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.8	0.0 ± 4.8
3A	Smith River	Crescent City	5/9	0.1 ± 0.2	0.0 ± 0.2	0.8 ± 4.9	0.0 ± 4.8
			9/7	0.0 ± 0.1	0.0 ± 0.1	0.0 ± 4.8	0.0 ± 4.8
3B	Redwood Creek	Orick	5/10	0.1 ± 0.2	0.0 ± 0.2	2.4 ± 4.7	6.4 ± 4.8
			9/7	0.1 ± 0.1	0.0 ± 0.1	0.9 ± 4.7	1.9 ± 4.7

TABLE B-28

RADIOASSAY OF SURFACE WATERS

NORTH COASTAL REGION (NO. 1) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
4	Trinity River	Hoopa	5/8	0.0 ± 0.2	0.0 ± 0.1	0.0 ± 4.4	2.2 ± 4.5
			9/4	0.1 ± 0.2	0.0 ± 0.1	6.9 ± 4.7	0.9 ± 4.6
4A	Trinity River	Lewiston	5/10	0.0 ± 0.2	0.0 ± 0.2	1.4 ± 4.4	1.6 ± 4.5
			9/8	0.1 ± 0.1	0.0 ± 0.1	1.7 ± 4.3	0.0 ± 4.3
4B	Trinity River	Burnt Ranch	5/10	0.1 ± 0.2	0.0 ± 0.1	0.0 ± 4.8	0.0 ± 4.8
			9/8	0.0 ± 0.2	0.0 ± 0.2	6.5 ± 4.7	1.2 ± 4.6
5	Eel River	McCann	5/9	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.5	4.7 ± 4.6
			9/6	0.1 ± 0.2	0.0 ± 0.1	5.7 ± 4.7	0.0 ± 4.6
5A	Van Duzen River	Bridgeville	5/8	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.3	0.0 ± 4.4
			9/6	0.2 ± 0.2	0.0 ± 0.1	1.6 ± 4.7	0.0 ± 4.7
5B	Outlet Creek	Longvale	5/10	0.0 ± 0.2	0.0 ± 0.2	4.2 ± 4.8	0.0 ± 4.7
			9/12	0.3 ± 0.2	0.0 ± 0.1	7.5 ± 4.6	0.0 ± 4.4
5C	Eel River, MF	below Dos Rios	5/10	0.0 ± 0.1	0.0 ± 0.2	0.0 ± 4.0	0.9 ± 4.1
			9/12	0.0 ± 0.2	0.0 ± 0.2	2.9 ± 4.5	0.0 ± 4.5
5D	Eel River	near Dos Rios	5/10	0.0 ± 0.1	0.0 ± 0.2	0.0 ± 4.8	0.0 ± 4.7
			9/12	0.0 ± 0.2	0.0 ± 0.2	10.0 ± 4.8	9.9 ± 4.8
6	Eel River	Scotia	5/8	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 0.4	0.0 ± 4.5
			9/6	0.0 ± 0.2	0.0 ± 0.2	5.8 ± 4.5	6.9 ± 4.5
6A	Mad River	Arcata	5/10	0.0 ± 0.2	0.0 ± 0.2	4.4 ± 4.8	19.3 ± 5.0
			9/5	0.2 ± 0.2	0.0 ± 0.1	6.1 ± 4.8	10.0 ± 4.6
7	Eel River, SF	Miranda	5/9	0.0 ± 0.2	0.0 ± 0.2	8.2 ± 4.7	16.4 ± 4.8
			9/6	0.2 ± 0.2	0.1 ± 0.1	0.4 ± 4.8	0.0 ± 4.7
7A	Mattole River	Petrolia	5/9	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	10.8 ± 4.9
			9/5	0.2 ± 0.2	0.0 ± 0.1	3.6 ± 4.6	0.0 ± 4.5

TABLE B-28

RADIOASSAY OF SURFACE WATERS

NORTH COASTAL REGION (NO. 1) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
8A	Russian River	Hopland	5/10	0.0 ± 0.1	0.1 ± 0.2	0.0 ± 4.7	0.0 ± 4.7
			9/13	0.0 ± 0.1	0.0 ± 0.2	0.0 ± 4.5	15.3 ± 4.7
8B	Navarro River	Navarro	5/9	0.1 ± 0.1	0.1 ± 0.1	1.5 ± 4.7	0.4 ± 4.7
			9/12	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.4	1.6 ± 4.5
8C	Big River	Mouth	5/9	0.0 ± 0.1	0.1 ± 0.2	0.0 ± 4.2	0.0 ± 4.2
			9/12	0.0 ± 0.2	0.0 ± 0.2	4.9 ± 4.8	1.3 ± 4.8
9	Russian River	Healdsburg	5/8	0.1 ± 0.2	0.0 ± 0.2	0.5 ± 4.7	3.6 ± 4.7
			9/11	0.1 ± 0.2	0.1 ± 0.1	0.0 ± 4.3	4.8 ± 4.4
9A	Gualala River,SF	Annapolis	5/8	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.0	3.1 ± 4.1
			9/11	0.2 ± 0.2	0.0 ± 0.1	0.0 ± 4.3	0.0 ± 4.3
10	Russian River	Guerneville	5/8	0.1 ± 0.2	0.0 ± 0.1	0.0 ± 4.0	1.3 ± 4.1
			9/11	0.0 ± 0.1	0.0 ± 0.1	0.0 ± 4.4	0.0 ± 4.5
10A	Russian River,EF	Potter Vly PH	5/10	0.2 ± 0.2	0.0 ± 0.1	4.0 ± 4.8	3.6 ± 4.8
			9/13	0.1 ± 0.2	0.0 ± 0.1	6.8 ± 4.6	28.5 ± 4.9
10C	Noyo River	Fort Bragg	5/9	0.0 ± 0.2	0.0 ± 0.1	7.6 ± 4.8	0.0 ± 4.6
			9/12	0.0 ± 0.2	0.0 ± 0.1	1.9 ± 4.5	0.0 ± 4.4

TABLE B-29

TABLE B-29

RADIOASSAY OF SURFACE WATERS

SAN FRANCISCO BAY REGION (NO. 2)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
71	Arroyo Del Valle	Livermore	5/4	0.0 ± 0.2	0.0 ± 0.2	4.1 ± 4.1	0.0 ± 4.1
72	Napa River	St. Helena	5/8	0.0 ± 0.2	0.0 ± 0.2	3.3 ± 4.7	0.0 ± 4.6
			9/13	0.0 ± 0.2	0.0 ± 0.2	5.5 ± 4.6	0.0 ± 4.4
73	Alameda Creek	Niles	5/4	0.0 ± 0.1	0.0 ± 0.2	23.3 ± 5.1	0.0 ± 4.7
			9/6	0.0 ± 0.1	0.0 ± 0.2	3.4 ± 4.8	0.0 ± 4.7
74	Los Gatos Creek	Los Gatos	5/4	0.1 ± 0.2	0.3 ± 0.3	0.0 ± 4.4	6.7 ± 4.5
			9/6	0.1 ± 0.1	0.4 ± 0.2	5.8 ± 4.7	5.2 ± 4.7
82	Coyote Creek	Madrone	5/2	0.0 ± 0.2	0.1 ± 0.3	0.0 ± 4.6	0.0 ± 4.6

TABLE B-30

TABLE B-30

RADIOASSAY OF SURFACE WATERS

CENTRAL COASTAL REGION (NO. 3)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
43	Salinas River	Spreckels	5/3	0.3 ± 0.2	0.2 ± 0.2	10.8 ± 4.3	5.3 ± 4.3
			9/6	0.1 ± 0.2	0.3 ± 0.2	12.2 ± 4.8	0.4 ± 4.6
43A	Salinas River	Paso Robles	5/2	0.1 ± 0.2	0.1 ± 0.2	6.9 ± 4.8	5.8 ± 4.8
43B	Nacimiento River	San Miguel	5/2	0.1 ± 0.2	0.1 ± 0.2	0.0 ± 4.8	0.0 ± 4.8
			9/5	0.0 ± 0.1	0.1 ± 0.2	6.2 ± 4.7	5.0 ± 4.7
43C	Salinas River	Bradley	5/2	0.0 ± 0.2	0.1 ± 0.2	3.6 ± 4.8	9.7 ± 4.8
			9/5	0.1 ± 0.2	0.1 ± 0.2	5.6 ± 4.7	1.3 ± 4.7
43D	San Antonio Cr	Pleyto	5/2	0.2 ± 0.2	0.1 ± 0.2	7.1 ± 5.1	0.0 ± 5.0
44A	Cuyama River	Garey	5/1	0.1 ± 0.2	0.0 ± 0.1	2.7 ± 5.0	0.0 ± 4.9
			9/11	0.0 ± 0.2	0.0 ± 0.2	12.8 ± 5.0	0.0 ± 4.8
44B	Santa Ynez River	Cachuma Res	5/1	0.0 ± 0.2	0.0 ± 0.2	7.2 ± 4.8	0.0 ± 4.7
			9/10	0.4 ± 0.2	0.1 ± 0.1	14.1 ± 5.1	11.6 ± 5.0
75	San Lorenzo R	Big Trees Park	5/3	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 4.1	4.1 ± 4.2
			9/6	0.0 ± 0.1	0.0 ± 0.1	8.7 ± 4.7	0.8 ± 4.7
76	Soquel Creek	Soquel	5/3	0.0 ± 0.2	0.0 ± 0.2	4.8 ± 4.4	0.2 ± 4.4
			9/6	0.0 ± 0.1	0.0 ± 0.1	3.3 ± 4.6	0.0 ± 4.4
77	Pajaro River	Chittenden	5/3	0.0 ± 0.2	0.0 ± 0.2	3.3 ± 4.3	0.0 ± 4.2
			9/5	0.1 ± 0.2	0.0 ± 0.1	4.8 ± 4.7	0.7 ± 4.6
77A	San Benito River	Bear Vly Fire St	5/2	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.5	0.0 ± 4.5
			9/4	0.1 ± 0.1	0.0 ± 0.1	0.0 ± 4.7	0.0 ± 4.6
83	Carmel River	Robles Del Rio	5/3	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.3	0.0 ± 4.3
96	Uvas Creek	Morgan Hill	5/2	0.0 ± 0.2	0.0 ± 0.2	0.1 ± 4.5	6.8 ± 4.6
			9/4	0.0 ± 0.1	0.0 ± 0.1	2.7 ± 4.4	5.6 ± 4.5

TABLE B-31

TABLE B-31

RADIOASSAY OF SURFACE WATERS

LOS ANGELES REGION (NO. 4)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
45B	Matilija Creek	above Dam	9/11	0.0 ± 0.1	0.0 ± 0.1	3.8 ± 4.4	2.4 ± 4.4
46	Santa Clara R	LA-Ventura Co Ln	9/10	0.0 ± 0.2	0.0 ± 0.2	1.8 ± 5.0	3.8 ± 5.0
46A	Santa Clara R	Santa Paula	5/3	0.2 ± 0.2	0.3 ± 0.2	11.7 ± 4.9	0.0 ± 4.7
			9/11	0.2 ± 0.2	0.2 ± 0.2	2.2 ± 4.6	0.0 ± 4.5
46C	Piru Creek	Piru	5/9	0.2 ± 0.2	0.2 ± 0.2	8.8 ± 4.8	5.9 ± 4.8
			9/10	0.3 ± 0.2	0.0 ± 0.2	13.9 ± 5.1	2.6 ± 4.9
46D	Sespe Creek	Fillmore	5/3	0.6 ± 0.2	0.0 ± 0.1	1.8 ± 4.9	0.0 ± 4.8
			9/10	0.2 ± 0.1	0.2 ± 0.1	1.2 ± 4.4	1.8 ± 4.4
46E	Santa Paula Cr	Santa Paula	5/3	0.2 ± 0.2	0.0 ± 0.1	2.7 ± 4.8	4.5 ± 4.8
			9/11	0.0 ± 0.2	0.0 ± 0.1	4.4 ± 4.4	5.4 ± 4.4
46F	Santa Clara R	Hwy 99 Bridge	5/3	0.2 ± 0.3	0.4 ± 0.3	14.7 ± 4.8	25.2 ± 5.0
			9/10	0.7 ± 0.3	0.1 ± 0.1	12.3 ± 5.1	3.2 ± 4.9
47	Los Angeles R	LA-Figueroa St	5/8	0.1 ± 0.2	0.2 ± 0.2	8.6 ± 4.8	2.2 ± 4.8
			9/7	0.1 ± 0.1	0.1 ± 0.1	5.1 ± 5.0	0.0 ± 4.9
48	Los Angeles R	Long Beach	5/8	0.0 ± 0.2	7.4 ± 0.8	4.6 ± 4.8	34.7 ± 5.1
			9/7	0.3 ± 0.2	3.1 ± 0.5	85.6 ± 5.7	29.4 ± 5.0
49	Rio Hondo River	Whittier Narrows	5/8	0.6 ± 0.3	0.0 ± 0.2	8.3 ± 4.9	0.0 ± 4.8
			9/13	0.0 ± 0.2	0.0 ± 0.2	11.6 ± 4.7	5.8 ± 4.6
49A	Mission Creek	Whittier Narrows	5/8	0.8 ± 0.3	0.0 ± 0.1	7.9 ± 4.9	0.0 ± 4.8
			9/13	0.0 ± 0.2	0.0 ± 0.2	11.6 ± 4.7	5.3 ± 4.6
50	San Gabriel R	Whittier Narrows	5/8	0.7 ± 0.3	0.0 ± 0.2	6.2 ± 4.9	0.0 ± 4.7
			9/13	0.2 ± 0.2	0.0 ± 0.2	7.3 ± 5.2	0.0 ± 5.1

TABLE B-31

RADIOASSAY OF SURFACE WATERS

LOS ANGELES REGION (NO. 4) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
50D	San Gabriel R	Azusa Pwr Hse	5/7	0.0 ± 0.2	0.0 ± 0.2	8.0 ± 4.9	0.0 ± 4.8
			9/13	0.1 ± 0.2	0.1 ± 0.2	4.7 ± 5.3	0.0 ± 5.2
61	Ventura River	Ventura	5/3	0.2 ± 0.2	0.1 ± 0.1	6.6 ± 4.8	0.0 ± 4.7
			9/11	0.4 ± 0.2	0.1 ± 0.1	0.0 ± 4.4	0.0 ± 4.4

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
11	Sacramento River	Delta	5/1	0.4 ± 0.2	0.1 ± 0.1	4.6 ± 4.8	0.1 ± 4.8
			9/12	0.2 ± 0.2	0.0 ± 0.1	6.2 ± 4.8	0.0 ± 4.7
11A	Cottonwood Cr	below North Fork	5/3	0.0 ± 0.2	0.0 ± 0.2	3.1 ± 4.8	0.0 ± 4.8
			9/14	0.3 ± 0.2	0.1 ± 0.1	8.9 ± 4.8	0.0 ± 4.6
11B	Cottonwood Cr,SF	abv Cottonwood Cr	5/3	0.1 ± 0.2	0.0 ± 0.1	1.2 ± 4.8	0.0 ± 4.8
12	Sacramento River	Keswick	5/1	0.0 ± 0.2	0.0 ± 0.2	3.4 ± 4.8	2.4 ± 4.8
			9/8	0.2 ± 0.2	0.0 ± 0.2	6.3 ± 4.5	3.3 ± 4.4
12B	Cottonwood Creek	Cottonwood	5/3	0.0 ± 0.2	0.0 ± 0.2	4.4 ± 4.8	0.0 ± 4.8
			9/14	0.1 ± 0.1	0.0 ± 0.2	2.8 ± 5.1	0.0 ± 5.1
12C	Sacramento River	Bend	5/3	0.1 ± 0.2	0.0 ± 0.1	0.1 ± 4.4	0.0 ± 4.4
			9/11	0.0 ± 0.1	0.0 ± 0.1	3.4 ± 4.3	2.5 ± 4.3
12D	Clear Creek	Igo	5/3	0.2 ± 0.2	0.2 ± 0.2	3.6 ± 4.8	0.5 ± 4.8
			9/14	0.1 ± 0.2	0.0 ± 0.2	1.4 ± 5.2	0.0 ± 5.2
13	Sacramento River	Hamilton City	5/14	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.6	3.0 ± 4.7
			9/20	0.0 ± 0.1	0.0 ± 0.1	3.7 ± 4.6	0.2 ± 4.6
13A	Stony Creek	Hamilton City	5/14	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.6
13B	Sacramento River	Colusa	5/7	0.0 ± 0.1	0.1 ± 0.2	0.9 ± 4.4	1.4 ± 4.4
			9/19	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.8
13C	Stony Creek	Blk Butte DamSite	5/17	0.0 ± 0.2	0.0 ± 0.2	10.2 ± 4.6	7.6 ± 4.6
			9/20	0.1 ± 0.2	0.5 ± 0.2	7.6 ± 4.6	5.4 ± 4.5
13D	Thomes Creek	Paskenta	5/17	0.0 ± 0.2	0.0 ± 0.2	8.4 ± 4.7	0.0 ± 4.6
			9/20	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.8	0.2 ± 4.8

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
13E	Elder Creek	Paskenta	5/17	0.0 ± 0.2	0.0 ± 0.2	2.7 ± 4.8	0.0 ± 4.7
			9/20	0.0 ± 0.1	0.0 ± 0.1	2.6 ± 4.5	5.1 ± 4.6
14A	Sacramento Slgh	Knights Landing	5/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.4	0.0 ± 4.3
			9/19	0.0 ± 0.2	0.1 ± 0.2	4.0 ± 4.7	16.2 ± 4.9
14B	Sacramento River	abv Colusa Trgh	5/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.7
			9/19	0.1 ± 0.2	0.2 ± 0.2	3.6 ± 4.9	0.0 ± 4.8
15B	Sacramento River	Freeport	5/3	0.0 ± 0.2	0.1 ± 0.2	2.2 ± 4.5	1.4 ± 4.5
			9/5	0.0 ± 0.2	0.0 ± 0.2	5.2 ± 4.7	5.9 ± 4.7
16	Sacramento River	Rio Vista	5/3	0.0 ± 0.2	0.0 ± 0.1	0.0 ± 4.8	0.0 ± 4.8
			9/5	0.1 ± 0.1	0.2 ± 0.2	7.6 ± 4.7	4.4 ± 4.6
16A	Calaveras River	Jenny Lind	5/7	0.1 ± 0.2	0.0 ± 0.1	0.0 ± 4.5	0.2 ± 4.5
17	Pit River	Montgomery Creek	5/2	0.0 ± 0.1	0.2 ± 0.2	3.8 ± 4.5	0.0 ± 4.4
			9/17	0.0 ± 0.2	0.0 ± 0.2	16.4 ± 5.1	0.0 ± 4.8
17A	Pit River	Canby	5/2	0.0 ± 0.1	0.0 ± 0.2	0.0 ± 4.4	0.0 ± 4.4
			9/17	0.0 ± 0.1	0.1 ± 0.1	13.3 ± 4.6	0.2 ± 4.4
17C	Pit River	Bieber	5/2	0.1 ± 0.2	0.2 ± 0.2	4.3 ± 4.4	0.2 ± 4.4
17D	Indian Creek	Crescent Mills	5/9	0.2 ± 0.2	0.0 ± 0.3	4.6 ± 4.5	1.7 ± 4.4
			9/11	0.1 ± 0.2	0.1 ± 0.2	5.3 ± 4.7	6.6 ± 4.7
18	McCloud River	abv Shasta Lake	5/1	0.1 ± 0.2	0.0 ± 0.2	0.2 ± 4.5	0.0 ± 4.5
			9/12	0.0 ± 0.2	0.0 ± 0.2	3.5 ± 4.8	1.5 ± 4.8

TABLE B-32

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
18A	Pit River, SF	Likely	5/2	0.0 ± 0.2	0.1 ± 0.2	0.0 ± 4.4	0.0 ± 4.4
			9/18	0.1 ± 0.2	0.0 ± 0.1	24.0 ± 5.2	10.5 ± 5.1
19	Feather River	Oroville	5/9	0.1 ± 0.2	0.0 ± 0.1	3.4 ± 4.8	1.8 ± 4.8
			9/11	0.1 ± 0.1	0.2 ± 0.2	9.5 ± 4.8	0.0 ± 4.7
20	Feather River	Nicolaus	5/15	0.0 ± 0.2	0.0 ± 0.2	1.0 ± 4.8	0.0 ± 4.8
			9/10	0.0 ± 0.1	0.1 ± 0.1	2.8 ± 4.7	0.0 ± 4.5
20A	Feather River	blw Shanghai Bend	5/15	0.0 ± 0.2	0.1 ± 0.2	8.4 ± 4.9	0.0 ± 4.7
			9/10	0.1 ± 0.1	0.2 ± 0.1	4.9 ± 4.4	4.9 ± 4.4
20B	Bear River	Mouth	5/15	0.0 ± 0.2	0.0 ± 0.2	7.2 ± 4.8	5.3 ± 4.8
21	Yuba River	Marysville	5/15	0.0 ± 0.2	0.0 ± 0.2	5.0 ± 4.9	3.0 ± 4.9
			9/10	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.6	0.0 ± 4.5
21A	Yuba River	Smartville	5/15	0.0 ± 0.2	0.0 ± 0.2	3.4 ± 4.9	0.0 ± 4.9
			9/10	0.1 ± 0.1	0.0 ± 0.1	5.6 ± 4.6	0.0 ± 4.5
22	American River	Sac-H St Brdg	5/10	0.0 ± 0.1	0.0 ± 0.1	4.4 ± 4.7	0.0 ± 4.6
			9/11	0.0 ± 0.2	0.0 ± 0.1	1.0 ± 4.5	0.0 ± 4.4
22A	American River	Nimbus Dam	5/10	0.0 ± 0.2	0.0 ± 0.2	4.2 ± 4.7	6.9 ± 4.7
			9/11	0.0 ± 0.1	0.0 ± 0.1	7.4 ± 4.6	3.4 ± 4.5
22B	American R, MF	Auburn	5/10	0.1 ± 0.2	0.0 ± 0.2	10.0 ± 4.9	7.7 ± 4.8
			9/11	0.2 ± 0.2	0.0 ± 0.1	6.6 ± 4.7	1.3 ± 4.6
22C	American R, SF	Lotus	5/10	0.0 ± 0.2	0.1 ± 0.3	1.9 ± 4.7	11.0 ± 4.8
			9/11	0.2 ± 0.2	0.0 ± 0.1	0.0 ± 4.7	0.0 ± 4.7
23	Mokelumne River	Woodbridge	5/10	0.2 ± 0.2	0.0 ± 0.2	0.2 ± 4.8	1.1 ± 4.8
			9/6	0.0 ± 0.2	0.0 ± 0.2	6.6 ± 4.6	0.1 ± 4.5

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
23A	Mokelumne River	Lancha Plana	5/10	0.0 ± 0.1	0.0 ± 0.2	4.3 ± 4.8	0.0 ± 4.8
			9/5	0.1 ± 0.1	0.0 ± 0.1	10.6 ± 4.8	0.9 ± 4.7
24	San Joaquin R	Friant	5/7	0.1 ± 0.3	0.0 ± 0.2	3.3 ± 4.7	4.6 ± 4.7
			9/4	0.1 ± 0.2	0.1 ± 0.2	5.1 ± 5.0	0.0 ± 4.9
24C	Salt Slough	San Luis Ranch	5/1	0.6 ± 0.3	1.2 ± 0.4	7.8 ± 4.6	5.6 ± 4.6
			9/7	0.3 ± 0.2	0.7 ± 0.3	11.4 ± 4.8	4.8 ± 4.7
25	San Joaquin R	Mendota	5/1	0.2 ± 0.2	1.0 ± 0.4	2.2 ± 4.7	5.6 ± 4.8
			9/7	0.4 ± 0.2	0.2 ± 0.2	2.0 ± 4.9	0.0 ± 4.8
25B	San Joaquin R	Hills Ferry Brg	5/1	0.2 ± 0.3	0.3 ± 0.3	0.0 ± 4.6	2.2 ± 4.7
			9/7	0.4 ± 0.2	0.7 ± 0.3	4.8 ± 5.0	2.1 ± 5.0
25C	San Joaquin R	Fremont Ford Brg	5/1	0.6 ± 0.3	0.5 ± 0.3	0.0 ± 4.6	3.1 ± 4.9
			9/7	0.7 ± 0.3	0.5 ± 0.2	7.8 ± 4.9	0.0 ± 4.8
26	San Joaquin R	Grayson	5/9	0.6 ± 0.3	1.2 ± 0.4	3.9 ± 4.8	10.9 ± 4.8
			9/3	0.6 ± 0.2	0.3 ± 0.2	14.7 ± 5.0	0.4 ± 4.8
26A	San Joaquin R	Maze Road Brg	5/9	0.4 ± 0.3	0.6 ± 0.3	8.0 ± 4.8	4.3 ± 4.6
			9/8	0.1 ± 0.2	0.5 ± 0.3	2.9 ± 4.8	3.6 ± 4.8
26B	San Joaquin R	Crows Landing Br	5/1	0.3 ± 0.2	0.3 ± 0.2	0.0 ± 4.3	0.0 ± 4.3
			9/6	0.7 ± 0.3	0.7 ± 0.3	6.0 ± 4.8	5.4 ± 4.8
27	San Joaquin R	Vernalis	5/1	0.1 ± 0.2	0.3 ± 0.3	0.0 ± 4.2	0.0 ± 4.2
			9/6	0.4 ± 0.2	0.4 ± 0.2	10.6 ± 5.0	3.4 ± 4.8
27A	San Joaquin R	Patterson	5/1	0.5 ± 0.4	0.1 ± 0.3	0.0 ± 4.6	2.7 ± 4.7
			9/6	0.5 ± 0.3	0.2 ± 0.2	8.6 ± 4.9	5.1 ± 4.9
28	San Joaquin R	Antioch	5/8	0.0 ± 0.2	0.3 ± 0.3	3.9 ± 4.7	0.0 ± 4.6
			9/5	0.0 ± 0.2	0.2 ± 0.2	11.5 ± 5.0	0.0 ± 4.8

TABLE B-32

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
29	Stanislaus River	Mouth	5/1	0.3 ± 0.2	0.0 ± 0.2	6.4 ± 4.4	1.8 ± 4.4
			9/6	0.2 ± 0.2	0.1 ± 0.1	4.3 ± 4.8	0.0 ± 4.7
29A	Stanislaus River	blw Tulloch Dam	5/10	0.2 ± 0.2	0.0 ± 0.2	0.0 ± 4.5	3.2 ± 4.7
			9/4	0.1 ± 0.1	0.1 ± 0.1	6.3 ± 4.8	5.0 ± 4.8
30	Tuolumne River	at Hickman-Waterford Brg	9/8	0.1 ± 0.2	0.1 ± 0.2	5.3 ± 4.5	0.0 ± 4.4
31	Tuolumne River	Tuolumne City	5/9	0.6 ± 0.3	0.2 ± 0.2	3.6 ± 4.6	0.0 ± 4.5
			9/8	0.2 ± 0.2	0.1 ± 0.2	7.8 ± 4.8	0.0 ± 4.6
31A	Tuolumne River	blw Don Pedro Dam	5/9	0.0 ± 0.2	0.0 ± 0.2	2.6 ± 4.4	0.0 ± 4.3
			9/8	0.0 ± 0.2	0.0 ± 0.2	12.1 ± 4.9	6.2 ± 4.8
32	Merced River	Stevinson	5/1	0.2 ± 0.3	0.7 ± 0.3	0.0 ± 4.6	0.6 ± 4.6
			9/7	0.4 ± 0.2	0.1 ± 0.2	6.0 ± 4.9	4.0 ± 4.8
32A	Merced River	blw Exchequer Dam	5/10	0.0 ± 0.2	0.1 ± 0.2	0.0 ± 4.5	0.0 ± 4.4
			9/4	0.0 ± 0.1	0.2 ± 0.2	3.2 ± 4.8	0.0 ± 4.9
33B	Kings River	blw Pine Flat Dam	5/1	0.1 ± 0.2	0.1 ± 0.2	1.5 ± 4.5	4.3 ± 4.6
			9/3	0.0 ± 0.2	0.0 ± 0.2	3.0 ± 4.9	0.0 ± 4.8
33C	Kings River	blw North Fork	5/1	0.2 ± 0.2	0.0 ± 0.2	3.6 ± 4.9	0.0 ± 4.9
			9/3	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 4.9	0.0 ± 4.9
33D	Big Creek	abv Pine Flat Dam	5/1	0.1 ± 0.2	0.1 ± 0.2	2.9 ± 4.5	2.3 ± 4.5
34	Kings River	blw Peoples Weir	5/8	0.0 ± 0.2	0.1 ± 0.2	0.8 ± 4.8	0.0 ± 4.8
			9/5	0.1 ± 0.1	0.0 ± 0.1	0.0 ± 4.8	0.0 ± 4.8
35	Kaweah River	blw Terminous Dam	5/8	0.0 ± 0.2	0.1 ± 0.2	4.7 ± 4.5	2.4 ± 4.5
			9/5	0.1 ± 0.2	0.0 ± 0.1	11.0 ± 4.8	2.6 ± 4.7

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
36	Kern River	Bakersfield	5/8	0.4 ± 0.3	0.2 ± 0.2	0.0 ± 4.6	1.7 ± 4.6
			9/5	0.4 ± 0.2	0.1 ± 0.2	2.8 ± 5.0	0.0 ± 4.9
36A	Kern River	blw Isabella Dam	5/1	0.0 ± 0.2	0.6 ± 0.3	2.4 ± 4.3	1.7 ± 4.3
			9/4	0.0 ± 0.1	0.2 ± 0.2	5.9 ± 4.9	5.2 ± 4.8
36B	Kern River	Kernville	5/1	0.3 ± 0.3	0.6 ± 0.3	9.7 ± 4.3	6.1 ± 4.2
			9/4	0.4 ± 0.2	0.0 ± 0.1	6.2 ± 4.9	0.0 ± 4.8
41	Clear Lake	Lakeport	5/2	0.0 ± 0.2	0.0 ± 0.2	1.4 ± 4.8	0.0 ± 4.8
			9/4	0.2 ± 0.2	0.0 ± 0.1	10.3 ± 4.8	1.9 ± 4.7
42	Cache Creek	Lower Lake	5/2	0.1 ± 0.2	0.0 ± 0.2	4.2 ± 4.8	0.0 ± 4.6
			9/4	0.1 ± 0.2	0.0 ± 0.1	4.1 ± 4.7	0.0 ± 4.6
78	Bear River	Wheatland	5/15	0.2 ± 0.2	0.1 ± 0.1	1.8 ± 4.8	0.0 ± 4.7
			9/10	0.0 ± 0.1	0.0 ± 0.1	6.3 ± 4.8	0.0 ± 4.7
79	Cache Creek, NF	Lower Lake	5/2	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.7
			9/4	0.1 ± 0.2	0.0 ± 0.2	6.1 ± 4.7	2.1 ± 4.6
80	Cache Creek	Capay	5/2	0.0 ± 0.1	0.0 ± 0.2	2.5 ± 4.7	3.0 ± 4.7
			9/4	0.1 ± 0.2	0.0 ± 0.1	5.0 ± 4.7	0.0 ± 4.6
81	Putah Creek	Winters	5/3	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.7	0.0 ± 4.7
			9/4	0.0 ± 0.1	0.0 ± 0.1	0.0 ± 4.6	0.0 ± 4.6
85A	Big Chico Creek	Chico	5/14	0.0 ± 0.2	0.0 ± 0.2	2.9 ± 4.7	0.0 ± 4.6
87	Colusa Trough	Colusa	5/7	0.0 ± 0.2	0.1 ± 0.2	5.3 ± 4.8	5.8 ± 4.8
			9/19	0.0 ± 0.1	0.4 ± 0.2	1.3 ± 4.8	2.7 ± 4.8
87A	Sacramento River	Butte City	5/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.6	3.3 ± 4.6
			9/19	0.0 ± 0.2	0.0 ± 0.1	3.0 ± 4.8	2.9 ± 4.8

TABLE B-32

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
88A	Cow Creek	Millville	5/3	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.8	0.0 ± 4.8
			9/14	0.0 ± 0.2	0.0 ± 0.1	9.9 ± 4.9	6.2 ± 4.9
88B	Battle Creek	Cottonwood	5/3	0.1 ± 0.2	0.0 ± 0.2	3.4 ± 4.8	0.0 ± 4.8
			9/11	0.2 ± 0.2	0.0 ± 0.1	6.0 ± 4.7	1.4 ± 4.6
88C	Antelope Creek	Mouth	5/1	0.0 ± 0.2	0.0 ± 0.2	7.8 ± 4.6	7.7 ± 4.6
			9/11	0.1 ± 0.1	0.0 ± 0.1	4.3 ± 4.9	0.0 ± 4.8
88D	Redbank Creek	Red Bluff	5/17	0.1 ± 0.2	0.0 ± 0.2	7.1 ± 4.7	1.9 ± 4.6
88E	Antelope Creek	Red Bluff	5/1	0.0 ± 0.2	0.0 ± 0.2	0.4 ± 4.1	0.0 ± 4.1
			9/11	0.2 ± 0.2	0.0 ± 0.1	1.1 ± 4.8	0.0 ± 4.7
88G	Paynes Creek	Red Bluff	5/3	0.0 ± 0.2	0.0 ± 0.1	5.8 ± 4.4	2.3 ± 4.4
			9/11	0.0 ± 0.2	0.0 ± 0.2	2.1 ± 4.5	0.1 ± 4.5
91	Tule River	blw Success Dam	5/10	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.3	0.0 ± 4.3
			9/13	0.3 ± 0.2	0.0 ± 0.1	11.9 ± 5.0	0.0 ± 4.8
92	Delta Mendota Canal	Mendota	5/1	0.2 ± 0.2	0.0 ± 0.1	0.5 ± 4.8	0.0 ± 4.8
			9/7	0.1 ± 0.1	0.5 ± 0.2	8.8 ± 5.0	2.9 ± 4.9
93	Delta Mendota Canal	Tracy	5/8	0.1 ± 0.2	0.5 ± 0.3	8.0 ± 4.4	13.4 ± 4.5
			9/6	0.0 ± 0.1	1.1 ± 0.3	11.7 ± 4.6	6.3 ± 4.5
94	Cosumnes River	Michigan Bar	5/10	0.0 ± 0.2	0.0 ± 0.2	3.8 ± 4.7	1.1 ± 4.6
			9/11	0.0 ± 0.1	0.0 ± 0.1	4.5 ± 4.6	2.1 ± 4.5
94A	Cosumnes River	McConnell	5/10	0.2 ± 0.2	0.2 ± 0.2	4.3 ± 4.9	2.5 ± 4.9
95A	Elder Creek	Gerber	5/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.4	0.0 ± 4.4
95B	Thomes Creek	Mouth	5/7	0.0 ± 0.1	0.1 ± 0.2	1.2 ± 4.4	0.0 ± 4.3

TABLE B-32

RADIOASSAY OF SURFACE WATERS

CENTRAL VALLEY REGION (NO. 5) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
99	Little Potato Sl	Terminous	5/9	0.1 ± 0.2	0.0 ± 0.1	0.0 ± 4.8	0.0 ± 4.8
			9/4	0.0 ± 0.1	0.1 ± 0.1	6.0 ± 4.7	0.0 ± 4.6
102	San Joaquin R	Mossdale Bridge	5/7	0.0 ± 0.3	0.0 ± 0.3	3.3 ± 4.6	6.0 ± 4.7
			9/6	0.2 ± 0.1	0.3 ± 0.2	23.0 ± 4.9	2.1 ± 4.6
103	Old River	Tracy	5/7	0.3 ± 0.3	0.3 ± 0.3	3.0 ± 4.6	2.2 ± 4.6
			9/6	0.6 ± 0.3	0.8 ± 0.3	5.1 ± 4.6	2.8 ± 4.6
103A	Grant Line Canal	Tracy Road Brg	5/7	0.0 ± 0.2	0.8 ± 0.4	1.3 ± 4.6	3.5 ± 4.7
104	Old River	Clifton Ct Ferry	5/28	0.2 ± 0.2	0.3 ± 0.2	8.2 ± 4.5	7.9 ± 4.5
			9/6	0.1 ± 0.2	0.1 ± 0.2	0.3 ± 4.5	0.0 ± 4.5
106	Italian Slough	Mouth	5/8	0.1 ± 0.2	0.3 ± 0.2	3.1 ± 4.8	0.0 ± 4.7
			9/6	0.1 ± 0.2	0.2 ± 0.2	3.7 ± 4.4	1.6 ± 4.4
107	Indian Slough	Brentwood	5/8	0.0 ± 0.1	0.5 ± 0.2	0.0 ± 4.7	0.4 ± 4.7
			9/6	0.2 ± 0.2	0.2 ± 0.2	11.7 ± 4.8	4.3 ± 4.7
108	Old River	Orwood Bridge	5/8	0.0 ± 0.2	0.5 ± 0.3	1.4 ± 4.5	4.5 ± 4.6
			9/6	0.1 ± 0.1	0.2 ± 0.2	7.4 ± 4.6	0.9 ± 4.5
109	Rock Slough	Knightsen	5/8	0.0 ± 0.2	0.2 ± 0.2	9.8 ± 4.7	1.1 ± 4.5
			9/6	0.1 ± 0.2	0.2 ± 0.2	4.0 ± 4.8	0.0 ± 4.6
113	Fresno River	Daulton	5/7	0.1 ± 0.2	0.5 ± 0.3	0.2 ± 4.4	5.7 ± 4.5
114	Chowchilla River	Raymond	5/7	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 4.6	0.0 ± 4.6

TABLE B-33

RADIOASSAY OF SURFACE WATERS

LAHONTAN REGION (NO. 6)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
17B	Susan River	Susanville	5/2	0.2 ± 0.2	0.0 ± 0.1	0.0 ± 4.4	0.0 ± 4.5
			9/18	0.1 ± 0.2	0.0 ± 0.1	15.5 ± 5.1	2.2 ± 4.9
37	Lake Tahoe	Tahoe Vista	5/9	0.0 ± 0.2	0.0 ± 0.2	0.4 ± 4.7	2.3 ± 4.7
			9/12	0.2 ± 0.2	0.1 ± 0.2	4.3 ± 4.8	4.5 ± 4.8
38	Lake Tahoe	Tahoe City	5/9	0.1 ± 0.2	0.2 ± 0.2	0.0 ± 4.9	0.0 ± 4.9
			9/12	0.0 ± 0.2	0.0 ± 0.1	6.4 ± 4.4	5.0 ± 4.4
39	Lake Tahoe	Bijou	5/10	0.1 ± 0.2	0.2 ± 0.2	0.0 ± 4.8	0.0 ± 4.8
			9/13	0.2 ± 0.2	0.1 ± 0.2	3.4 ± 4.6	0.2 ± 4.5
52	Truckee River	Truckee	5/9	0.1 ± 0.1	0.0 ± 0.1	0.0 ± 4.6	0.0 ± 4.6
			9/12	0.3 ± 0.2	0.0 ± 0.1	8.0 ± 4.8	0.0 ± 4.7
53	Truckee River	Farad	5/11	0.0 ± 0.2	0.0 ± 0.2	1.6 ± 4.8	3.1 ± 4.8
			9/14	0.1 ± 0.2	0.1 ± 0.2	3.1 ± 5.0	0.0 ± 4.9
67	Mojave River	Victorville	5/14	0.8 ± 0.3	0.3 ± 0.2	10.2 ± 4.8	6.4 ± 4.7
			9/12	0.6 ± 0.3	0.5 ± 0.3	6.2 ± 4.9	9.4 ± 4.9
67A	Mojave River	The Forks	5/14	0.5 ± 0.3	0.0 ± 0.2	10.1 ± 4.9	8.1 ± 4.9
			9/12	0.2 ± 0.2	0.0 ± 0.1	5.0 ± 4.6	2.1 ± 4.6
115	Carson River, EF	Markleeville	5/10	0.0 ± 0.2	0.2 ± 0.3	5.5 ± 4.8	5.4 ± 4.8
			9/13	0.0 ± 0.2	0.0 ± 0.2	6.1 ± 4.8	4.0 ± 4.8
115A	Carson River, WF	Woodfords	5/10	0.1 ± 0.2	0.4 ± 0.2	3.1 ± 4.8	5.7 ± 4.8
			9/13	0.4 ± 0.2	0.2 ± 0.2	5.1 ± 4.7	0.0 ± 4.6
116	West Walker R	Coleville	5/10	0.0 ± 0.2	0.2 ± 0.3	0.0 ± 4.7	3.8 ± 4.8
			9/13	0.3 ± 0.2	0.2 ± 0.1	3.3 ± 4.6	0.0 ± 4.6
116A	East Walker R	Bridgeport	5/10	0.3 ± 0.2	0.0 ± 0.2	7.8 ± 5.0	0.0 ± 4.8
			9/13	0.4 ± 0.2	0.2 ± 0.2	16.2 ± 4.9	8.9 ± 4.8

TABLE B-34

RADIOASSAY OF SURFACE WATERS

COLORADO RIVER BASIN REGION (NO. 7)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
54	Colorado River	Topock, Arizona	5/15	0.6 ± 0.3	0.0 ± 0.2	12.9 ± 4.9	3.4 ± 4.8
			9/17	0.4 ± 0.2	0.1 ± 0.1	14.9 ± 5.4	0.0 ± 5.2
55	Colorado River	blw Parker Dam	5/15	0.6 ± 0.3	0.0 ± 0.2	14.4 ± 5.0	0.0 ± 4.8
			9/18	0.5 ± 0.3	0.0 ± 0.2	11.2 ± 5.4	0.0 ± 5.3
56	Colorado River	Yuma, Arizona	9/5	0.2 ± 0.2	0.1 ± 0.2	9.5 ± 5.4	0.0 ± 5.2
56A	All American Canal	Pilot Knob	5/16	0.5 ± 0.3	0.1 ± 0.2	11.8 ± 4.8	0.0 ± 4.6
			9/5	0.9 ± 0.3	0.2 ± 0.2	10.1 ± 4.5	4.0 ± 4.4
56B	Colorado River	blw Morelos Dam	5/16	0.0 ± 0.2	0.0 ± 0.2	7.4 ± 4.9	2.3 ± 4.8
			9/5	0.0 ± 0.2	0.0 ± 0.2	10.2 ± 4.4	7.2 ± 4.4
56C	Colorado River	Blythe	5/15	0.6 ± 0.3	0.0 ± 0.2	4.0 ± 4.9	0.0 ± 4.9
			9/18	0.6 ± 0.3	0.1 ± 0.1	7.4 ± 4.8	0.0 ± 4.7
57	New River	Int'l Boundary	5/10	0.1 ± 0.2	0.2 ± 0.2	6.1 ± 4.8	2.7 ± 4.7
			9/5	0.0 ± 0.2	1.1 ± 0.3	20.2 ± 4.7	3.9 ± 4.5
58	New River	Westmoreland	5/10	0.0 ± 0.2	0.6 ± 0.3	11.5 ± 4.9	18.8 ± 5.0
			9/4	0.0 ± 0.2	1.0 ± 0.3	7.2 ± 4.5	15.9 ± 4.6
59	Alamo River	Int'l Boundary	5/10	0.0 ± 0.2	0.1 ± 0.3	11.1 ± 4.8	5.0 ± 4.7
			9/5	0.0 ± 0.2	0.0 ± 0.2	4.2 ± 4.4	0.0 ± 4.4
60	Alamo River	Calipatria	5/10	0.3 ± 0.2	0.9 ± 0.3	2.5 ± 4.9	6.2 ± 4.9
			9/4	0.0 ± 0.2	0.7 ± 0.3	8.6 ± 4.6	8.8 ± 4.6
68	Whitewater River	Whitewater	5/10	0.9 ± 0.3	0.0 ± 0.1	0.3 ± 4.8	0.0 ± 4.7
			9/4	1.2 ± 0.3	0.1 ± 0.1	19.1 ± 4.8	0.0 ± 4.5

TABLE B-34

RADIOASSAY OF SURFACE WATERS

COLORADO RIVER BASIN REGION (NO. 7) (continued)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
68A	Salton Sea	State Park	5/10	0.1 ± 0.1	0.1 ± 0.1	4.8 ± 4.8	0.5 ± 4.7
			9/4	0.0 ± 0.1	0.0 ± 0.2	10.9 ± 4.6	0.0 ± 4.5
68B	Whitewater River	Mecca	5/10	0.3 ± 0.2	1.4 ± 0.4	15.3 ± 5.0	16.9 ± 5.0
			9/4	0.0 ± 0.1	0.7 ± 0.3	12.6 ± 4.7	20.1 ± 4.8

TABLE B-35

RADIOASSAY OF SURFACE WATERS

SANTA ANA REGION (NO. 8)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
50B	Warm Creek	Colton-F Street	5/7	0.0 ± 0.2	0.2 ± 0.3	12.7 ± 4.9	1.7 ± 4.7
			9/4	0.1 ± 0.1	0.4 ± 0.2	12.3 ± 4.6	0.0 ± 4.5
51	Santa Ana River	Arlington	5/7	0.8 ± 0.3	0.2 ± 0.2	14.0 ± 4.9	0.5 ± 4.7
			9/12	0.7 ± 0.3	0.2 ± 0.2	11.0 ± 4.5	4.7 ± 4.3
51A	Santa Ana River	Prado Dam	5/7	0.5 ± 0.3	0.3 ± 0.3	12.8 ± 4.9	7.9 ± 4.9
			10/4	0.4 ± 0.2	0.9 ± 0.3	12.4 ± 4.6	4.0 ± 4.5
51B	Santa Ana River	Mentone	5/7	1.7 ± 0.4	0.7 ± 0.3	4.8 ± 4.7	8.4 ± 4.8
			9/12	1.9 ± 0.5	0.1 ± 0.2	9.9 ± 5.2	0.0 ± 5.0
51E	Santa Ana River	Norco	5/7	0.0 ± 0.2	0.2 ± 0.2	1.7 ± 4.6	2.8 ± 4.6
			9/12	0.6 ± 0.2	0.3 ± 0.2	9.5 ± 4.6	0.0 ± 4.4
86	Chino Creek	Chino	5/7	0.0 ± 0.2	0.2 ± 0.2	20.6 ± 5.1	6.3 ± 4.9

TABLE B-36

RADIOASSAY OF SURFACE WATERS

SAN DIEGO REGION (NO. 9)

Sta. No.	Stream	Near	Date 1962	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
63	Escondido Creek	Harmony Grove	9/6	0.2 ± 0.2	0.5 ± 0.2	22.3 ± 5.3	1.0 ± 5.0
65	San Diego River	Old Mission Dam	5/9	0.1 ± 0.2	0.8 ± 0.3	9.3 ± 4.9	0.0 ± 4.8
65B	Spring Valley Cr	La Pressa	5/9	0.0 ± 0.1	1.5 ± 0.4	6.0 ± 4.8	5.0 ± 4.8
			9/6	0.0 ± 0.1	1.4 ± 0.4	19.3 ± 5.1	12.5 ± 5.0
65C	San Diego River	Mission Gorge Rd	9/6	0.0 ± 0.1	1.2 ± 0.3	18.3 ± 5.1	4.0 ± 5.0

TABLE B-37

DESCRIPTION OF SALINITY OBSERVATION STATIONS

1961-62 Water Year

Station	Miles from Golden Gate (a)	Time Interval (b)		Location
		Hours	Min.	
				SAN FRANCISCO, SAN PABLO, AND SUISUN BAYS
Sobrante Beach	20.5	2	50	South shore of San Pablo Bay from wharf approximately 1.5 miles upstream from Point Pinole.
Crockett	27.7	3	30	West end of Carquinez Strait, south shore, 0.2 mile east of Carquinez Bridge on whart of C. and H Sugar Refinery Corporation.
Benicia	32.5	3	50	East end of Carquinez Strait, north shore, 1.1 miles west of Southern Pacific Company railroad bridge at Benicia Arsenal.
Martinez (c)	32.7	3	50	East end of Carquinez Strait, south shore, 1.0 mile west of Southern Pacific Company railroad bridge at Municipal Ferry Slip. (Bulls Head Point.)
West Suisun	37.0	4	10	West end of Suisun Bay, north shore, 2.5 miles northeast of Southern Pacific railroad bridge at service pier of U. S. Maritime Commission, Reserve Fleet mooring area.
Innisfail Ferry	47.3	4	50	Montezuma Slough, about one east of junction with Cutoff Slough near north end of Grizzly Island.
Port Chicago	41.0	4	20	South shore of Suisun Bay at U. S. Naval ammunition loading wharf below Port Chicago.
Spoonbill Creek	48.9	5	05	At Sacramento Northern Railroad crossing.
Pittsburg	48.0	5	00	East end of Suisun Bay, south shore, at Pittsburg Yacht Harbor.
				SACRAMENTO RIVER DELTA
Collinsville	50.8	5	25	Sacramento River, north bank at junction with San Joaquin River.
Emmaton	57.6	5	45	Sacramento River, south bank, 5.9 miles downstream from Rio Vista.
Threemile Slough Bridge	60.0	5	55	At junction of slough and Sacramento River.
Rio Vista Bridge	63.5	6	05	At highway bridge near northerly limits of Rio Vista.
Isleton Bridge	68.7	6	30	Sacramento River, one mile upstream from Isleton.
				SAN JOAQUIN RIVER DELTA
Antioch	54.9	5	55	San Joaquin River at City Water Works pumping plant.
Antioch Bridge	58.2	6	10	South shore San Joaquin River at Antioch Bridge.
Jersey Island	60.9	6	20	San Joaquin River, left bank approximately 1.5 miles below mouth of False River.
Threemile Slough	64.2	6	30	Threemile Slough, west bank, of junction of slough with the San Joaquin River.
Oulton Point	67.2	6	40	San Joaquin River, right bank, three miles upstream from junction of Threemile Slough.
San Andreas Landing	70.3	6	55	San Joaquin River, right bank, one mile below the mouth of the Mokelumne River.
Opposite Central Landing	72.0	7	00	Mokelumne River on Andrus Island directly opposite Central Landing on Bouldin Island.
Dutch Slough	73.0	7	05	At Bethel Island Bridge.
East Contra Costa Irrigation District	86.7	8	20	Indian Slough at East Contra Costa Irrigation District pumping plant.
Clifton Court Ferry	94.2	9	10	Old River just below junction with Grant Line Canal.
Mossdale Bridge	108.5	10	50	San Joaquin River at U. S. 50 Highway crossing about three miles southwest of Lathrop.
Vernalis	127.0	11	00	San Joaquin River at Durham Ferry Bridge above tidal influence.

a Mileage measured to station along main channel. For stations off the main channel, the mileage shown is the same distance along the main channel to a point whereon the time of the occurrence of the tidal phase is the same as that of the observation station.
b Time interval between high tide at Golden Gate and time for taking samples at station.
c As of September 22, 1962, sampled from Shell Oil Company dock, about 0.6 mile downstream from Southern Pacific Company railroad bridge.

TABLE B-38

MAXIMUM OBSERVED SALINITY AT BAY AND DELTA STATIONS

In parts of chloride per million parts of water*

Station (a)	Water Year											
	1931	1938	1939	1944 b	1952	1955	1956 c	1958	1959	1960	1961	1962
Sacramento-San Joaquin System Unimpaired Runoff in percent of average (d)	34	188	49	62	168	63	175	166	66	70	61	
				San Francisco, San Pablo, and Suisun Bays								
Sobrante Beach**					14200	19000	16200	13800	17200	16400	15000	15600
Crockett					13200	16600	15300	11900	15000	13500	19900	13900
Benicia				13900	10400	15100	12300	12100	19200	13000	14000	12300
Martinez	16900	11600	16400		8900	11900	11900	7150	10200	8750	11600	12700
West Suisun					7900	12600	11200	7520	13200	11100	13200	11100
Innisfail Ferry	14000	3300	13600	7900	4200	5780	5200	3040	9640	6610	13900	5690
Port Chicago					6900	12500	9750	5830	15640	10700	11900	9370
Spoonbill Creek	13900	2560	11800	7200	2800	6400	4040	930	6270	5040	5900	3540
Pittsburg					1200	7800	3440	1200	5110	3700	3920	3980
				Sacramento River Delta								
Collinsville	12600	860	10400	4700	783	3880	2280	550	5430	4500	4300	2430
Emmaton						1080	158	29	2600	1580	2070	841
Threemile Slough Bridge	8600		5900	1010	175	635	56	18	1480	807	633	232
Rio Vista Bridge	7400		4050	550	175	158	21	17	219	87	69	52
Isleton Bridge	6350		2500	50	125	23	17	14	20	19	18	18
				San Joaquin River Delta								
Antioch	12400	510	9200	4000	354	3320	1270	184	5410	2800	2930	1770
Antioch Bridge						2360	160	122	2570	1430	1360	479
Jersey Island						1130	152	52	1220	e	e	84
Threemile Slough						428	62	45	1900	451	489	130
Oulton Point						376	105	44	567	401	596	150
San Andreas Landing						98	66	40	248	105	345	57
Opposite Central Landing	4250	100	1380	200	250	36	96	17	46	58	34	27
Dutch Slough	5100	110	2050	690	88	454	107	110	1044	548	825	192
East Contra Costa Irrigation District			320	140	152	196	173	333	356	227	278	222
Clifton Court Ferry	1300		190		112	146	146	126	211	173	191	246
Mossdale Bridge	120	120	160	130	122	224	206	219	261	318	346	308
Vernalis (f)					121	231	202	146	297	206	508	309

* Ocean water contains approximately 18,200 parts per million.
** Prior to 1962 water year, the samples were collected at Point Pinole, 1.5 miles downstream from present station.

a For location see Plate
b Releases of stored water from Shasta Lake commenced in 1944.
c Releases of stored water from Folsom Reservoir commenced in 1956.
d Average taken as mean annual unimpaired flow at foothill stations of major tributaries for 50-year period October 1907 through September 1957.
e No record.
f Station located above tidal action.

TABLE B-39

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	October 1961							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach								
Crockett		13200	12900	12200	12700	13800	13900	11300
Benicia	11100	10800	10800		12100	10600	11400	7650
Martinez	10900	12700	11400	12100	11400	12500	12700	10200
West Suisun	8940		a 8910		10300	7480	10300	
Innisfail Ferry	a 5540	5000	d 5250	5000	a 5240	d 5420	4260	a 5470
Port Chicago	7180	7640	8580	9090		7490	8260	6400
Spoonbill Creek	3540	2980	2940	2980	3520	2960	3440	3140
Pittsburg	a 1690	2300	c 2180		ab 3980		2850	d 1090
			Sacramento River Delta					
Collinsville		1950	2100	a 1660	a 2180		a 1870	1690
Emmaton	a 310	470	535	a 468	a 677	841	a 771	207
Threemile Slough Bridge	b 95	91	a 82	173	b 209	150	232	80
Rio Vista Bridge	b 14	19	13	16			13	11
Isleton Bridge	b 17	13	14	11	b 12	12	10	9
			San Joaquin River Delta					
Antioch	a 836	1180	1140	1270	a 1770	1520	1690	535
Antioch Bridge	a 126	208	199	237	a 273	229	214	156
Jersey Island								67
Threemile Slough			80	a 47				
Oulton Point	a 64		81	a 59	a 109	b 92	a 63	
San Andreas Landing	a 23	17	23	a 21	a 22	14	27	23
Opposite Central Landing	a 16	15	14	a 12		14	a 14	12
Dutch Slough	a 126	114	a 116	a 104	a 105	124	a 112	92
East Contra Costa Irrigation District	a 113	96	a 100	109	a 107	121	a 107	111
Clifton Court Ferry	a 63	58	a 60	a 58	a 61	a 77	a 55	59
Mossdale Bridge	a 283	a 308	a 300	a 292	a 264	a 280	a 251	234
Vernalis (g)	a 292	304	a 290	b 243	a 309	a 262	a 244	233

Station	November 1961							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	14500	d 14100	d 14200	d 13000	d 13500		d 13700	d 13800
Crockett	11800	12400	13000	11400	12200	12100		
Benicia	9690	8720	11300	9720	11100			8700
Martinez	10200	b 11900	9980	10000	11600	9140	7360	10600
West Suisun	ae 8530	7110			6350			a 5040
Innisfail Ferry	5690	5290	5040	5070	4840	4840	b 5350	5000
Port Chicago		7190	8540	6450	6160	6970		a 4820
Spoonbill Creek	3170	3240	3500	2870	2980	3150	3170	2500
Pittsburg		1860		a 814	2170			2610
			Sacramento River Delta					
Collinsville	2060	1520	d 1650	a 1510	1840	1400	a 1320	1210
Emmaton	451	446	a 425	a 352	d 358	455	a 395	278
Threemile Slough Bridge	97	63	139	43	81	67	66	67
Rio Vista Bridge	9	8	11	10	17	15	11	15
Isleton Bridge	2	8	10	12		9	8	12
			San Joaquin River Delta					
Antioch	1080	920	1220	1140	949	1110	1210	963
Antioch Bridge	138	113	157	a 112	107	103	a 168	129
Jersey Island								
Threemile Slough	41	45	48		30	35	46	
Oulton Point	64	42	67	a 46	47	a 44	58	37
San Andreas Landing	23	19	22	a 19	20	21	20	18
Opposite Central Landing		14	a 10	a 8		16	a 10	11
Dutch Slough	92	75	a 69	a 61	60	a 57	a 57	57
East Contra Costa Irrigation District	84		a 54	a 55	54	a 61	59	63
Clifton Court Ferry	56	57	a 60	a 65	67	a 75		93
Mossdale Bridge	232	a 232	a 173	a 182	216	a 224	a 212	186
Vernalis (g)	223	a 184	a 162	a 205	a 220	a 208	bd 180	d 193

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	December 1961							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	d 12000	d 11900	d 11100	11200	d 12200	d 12000	ad 10900	d 10800
Crockett	11100	8800	8700	9570	10600	10100	7790	9350
Benicia	8980	6570	6300	7040	7410	8130	5740	8040
Martinez	10800	6670	8890	8650	10400	7780		9020
West Suisun							2560	5660
Innisfail Ferry		d 4630	2220	2780		2610	3280	bd 990
Port Chicago	7370	3980	3800	4070	5940	4930	2410	5690
Spoonbill Creek	2460	553	324	304	582	836	430	587
Pittsburg				648				120
			Sacramento River Delta					
Collinsville	1090	213	167	65	232	a 162	56	
Emmaton	137	51	a 24	32		52	30	23
Threemile Slough Bridge	58	24	21	19	20	20	16	15
Rio Vista Bridge	13	9	14	15	16	12	9	12
Isleton Bridge	12	9	14	13	14	10	7	12
			San Joaquin River Delta					
Antioch	782	282	88	65	123	167	74	57
Antioch Bridge	95	42	42	37		42	a 42	31
Jersey Island								
Threemile Slough					24	23	20	21
Oulton Point	35	a 20	a 24		d 22	d 26	a 21	d 24
San Andreas Landing	18	17	17	20	21	20	a 20	21
Opposite Central Landing	12		a 10	16	16		8	
Dutch Slough	60	55	46	46	41	41	43	47
East Contra Costa Irrigation District	65	79	76	83	76	a 85	87	97
Clifton Court Ferry	116	148	a 176	175	184	a 195	214	228
Mossdale Bridge	194	a 186	a 171	204	a 223	a 221	218	236
Vernalis (g)	a 185	a 174	a 183	211	a 232	211	222	236

Station	January 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	d 12700	d 12800	d 13300	12800	12700	12300	10900	11200
Crockett	11200	12000	11000	11000	11400	9220		9200
Benicia	9120	9820	8610	8040	9390	7020	6730	8140
Martinez	10600	9610	8300	a 7610		8590	a 6200	9510
West Suisun	7100	7040	5660	6460		5160	3800	
Innisfail Ferry	2800	3170	3380	3500	3640	d 3540	3640	3100
Port Chicago	6850				7440	3460	3190	5110
Spoonbill Creek	1570	1570	2250	1550	1490	1550	639	832
Pittsburg			ad 1030	ab 1260	1270		a 204	ad 136
			Sacramento River Delta					
Collinsville	956	790	a 856	788	797	836	100	a 424
Emmaton	41	187	a 97	80	167	22	25	28
Threemile Slough Bridge	14	20	20	23	21	22	17	14
Rio Vista Bridge	13	15	12	13	14	14	8	9
Isleton Bridge	10	11	18	13	13	10	7	9
			San Joaquin River Delta					
Antioch	401	643	460	370	478		119	76
Antioch Bridge	37	45	a 44	50	51	53	48	45
Jersey Island								
Threemile Slough			a 26	26			28	
Oulton Point	20	24	25	28	29	31	31	25
San Andreas Landing	22	23	a 24	d 28	24	30	a 20	31
Opposite Central Landing	14	a 13	a 12		22	a 8	7	12
Dutch Slough	46	45	a 49	53	55	a 55	57	57
East Contra Costa Irrigation District	102	101	a 128	135	a 150	a 143	161	
Clifton Court Ferry	234	a 237	a 241	246	a 244	a 226	231	221
Mossdale Bridge	a 221	a 227	a 238	208	a 217	221	214	222
Vernalis (g)	238	a 237	a 246	204	a 218	ad 225	207	224

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	February 1962							
	2	6	10	14	18	22	26	
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	12300	12500	12500	5230	2560	a 3160	3680	
Crockett		11400	10600	3180	1030	1540	1890	
Benicia	9490	8120	6800	1200	290	97	332	
Martinez	9490	11200	a 6330	1240	329	a 295	a 305	
West Suisun	4670	6700	5270	542	310	44	78	
Innisfail Ferry	2990	d 3340	3310	2520	756	436		
Port Chicago	ad 4650		5310	a 329	a 281	a 49	a 4[illegible]	
Spoonbill Creek	1670	1480	1740	116	23	a 33	38	
Pittsburg	1390	1050	1320	70			53	
			Sacramento River Delta					
Collinsville	729	930	901	44	51	12	14	
Emmaton	60	d 138	69	19	24	7	11	
Threemile Slough Bridge	17	a 21	17	6	5	5	8	
Rio Vista Bridge	12	13	7	6	5	8	9	
Isleton Bridge	10	10	12	6	9	6	7	
			San Joaquin River Delta					
Antioch	452	441	485	55	58	a 62	56	
Antioch Bridge	53	55	a 71	54	69	a 87	86	
Jersey Island								
Threemile Slough	28	d 30		d 32	d 31	30	20	
Oulton Point	27	28	24	31	51	47	40	
San Andreas Landing	25	a 29	27	13	22	18	16	
Opposite Central Landing	15	a 10	7	9	7	10	10	
Dutch Slough	58	a 64	61	80	143	144	117	
East Contra Costa Irrigation District	165	a 177	168	222	a 211	102	76	
Clifton Court Ferry	230	a 230	221	182	a 60	33	45	
Mossdale Bridge	a 230	a 239	186	a 43	a 44	33	42	
Vernalis (g)	230	248	185	a 44	39	30	d 44	

Station	March 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	8490	d 6570	a 3170	3740	6640	a 7530	a 4500	ae 8280
Crockett				bd 3600	5110			4870
Benicia	4340	d 3340	169	335	2440	2360	3060	2620
Martinez	3400	3870	a 3840	1570	4270	a 1150	a 2940	2450
West Suisun	566		94	ae 76	[illegible]		858	ae 673
Innisfail Ferry	585	473	937	ae 682		a 568	614	641
Port Chicago	868	160	a 180	44		a 141	479	531
Spoonbill Creek	30	38	30	38	36	a 36	52	43
Pittsburg	44	61	33	35	26	a 35	ad 32	25
			Sacramento River Delta					
Collinsville	20	18	13	17	16	a 21	20	20
Emmaton	17	12	9	16	d 12	15	16	
Threemile Slough Bridge	15	a 14	12	10	16	12	16	11
Rio Vista Bridge	16	12	7	7	12	12	11	9
Isleton Bridge	8	6	6	7	10	12	7	7
			San Joaquin River Delta					
Antioch	52	48	41	50	41	a 37	35	42
Antioch Bridge	77	74	60	50	54	a 52	57	42
Jersey Island								
Threemile Slough	36	34	28	26		a 24	23	22
Oulton Point	21	30	28	33	31	24	22	21
San Andreas Landing	34	27	27	22		a 21	20	21
Opposite Central Landing	12	12	8	8	12		8	9
Dutch Slough	99	83	82	77	89	73	65	54
East Contra Costa Irrigation District	103	a 9[illegible]	95	87	80	82	83	47
Clifton Court Ferry	59	a 74	45	44	52	63	65	71
Mossdale Bridge	a 72	a [illegible]	25	41	a 55	64	66	68
Vernalis (g)	a 61	a 65	26	ad 40	a 52	64	63	ad [illegible]

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	April 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	9010	a 7570	b 7270	a 10000	a 9450	a 9220	a 8490	a 8640
Crockett	6440	5100	4400	e 7090				
Benicia		2230	1690	4820	4090	4760	2700	3900
Martinez	4790	a 993	a 3520	a 5290	a 3450	a 5290	3450	a 3620
West Suisun		1190	344		1770			1010
Innisfail Ferry		a 555	508	a 568		a 554	403	
Port Chicago	a 473	460	230	1930	a 677	a 440	1050	1400
Spoonbill Creek	37	a 33	28	a 24	a 19	a 18	23	a 23
Pittsburg	24	d 31	22		17		19	a 17
			Sacramento River Delta					
Collinsville	16	a 21	14	a 11	a 13		15	
Emmaton	15	15	19	a 12	ab 9		9	a 7
Threemile Slough Bridge	14	12	6	6	5	4	6	a 6
Rio Vista Bridge	10	6	6	6	5	5	5	10
Isleton Bridge	6	4	4	9	5	5	6	5
			San Joaquin River Delta					
Antioch	32	a 28		a 20	a 18	18	15	a 16
Antioch Bridge	55	a 206	a 39	a 31	a 36	a 37	19	a 30
Jersey Island								
Threemile Slough	20	a 16	11		a 10		11	a 12
Oulton Point	24	16	13		10	12	8	a 9
San Andreas Landing	16	12	12	a 9	a 8		7	a 6
Opposite Central Landing	9	6	5		a 8	4	7	a 7
Dutch Slough	52	53	39	34	a 34	27	22	a 18
East Contra Costa Irrigation District	100	93	141	ab 91	100	69	47	47
Clifton Court Ferry	a 71		72	a 70	a 54	50	47	40
Mossdale Bridge		98	113	a 123	180	64	65	60
Vernalis (g)	a 62	98	109	112	137	64	d 54	56

Station	May 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	a 10100	a 10700	a 9400	7750	a 11400	a 11000	a 11400	a 11400
Crockett				a 5730	8430	7270	8340	9240
Benicia	5020	5770	4330	5330	5790	6700	5150	d 7180
Martinez	a 3750	a 3700	4580	a 5690	a 2450	a 6330	a 4530	4070
West Suisun	4480	2670	2730	3710		3560		6050
Innisfail Ferry	a 444			a 414	a 381	a 384	b 410	
Port Chicago		a 1010	d 364	2090	a 1310	3140	2060	4190
Spoonbill Creek	a 20	46	a 74	a 32	a 36	46	a 73	a 244
Pittsburg		d 35	a 40	a 20		61		
			Sacramento River Delta					
Collinsville	a 8	17	a 26	a 14	a 23	36	a 18	a 20
Emmaton	d 8	10	ab 12	a 7	a 7		a 13	a 16
Threemile Slough Bridge	a 7	10	b 12	6	7	9	b 11	18
Rio Vista Bridge	5	7	b 9	6	7	8	b 10	8
Isleton Bridge	7	6	b 9	11	7	8	b 9	10
			San Joaquin River Delta					
Antioch	a 15	26	a 23	a 13	a 13	26	a 28	a 31
Antioch Bridge	a 21		a 30	a 25	a 13	22	a 20	a 25
Jersey Island								
Threemile Slough	a 9		a 11	a 9	a 11	12	a 13	a 12
Oulton Point	10	8	ab 11	a 10		11	a 13	
San Andreas Landing	a 8	10	a 12	a 11	a 10	12	a 11	a 10
Opposite Central Landing	a 8	d 11		a 9		8	a 15	a 9
Dutch Slough	a 19	18	a 16	a 16	16	17	a 20	a 21
East Contra Costa Irrigation District	41	34	a 31	a 38	38	38	b 60	a 41
Clifton Court Ferry	41	39	a 38	32	36	38	a 41	a 41
Mossdale Bridge	68	56	a 64	32	66	94	a 85	89
Vernalis (g)	64	53	a 54	33	d 66	82	a 82	95

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
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d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	June 1962							
	2	[illegible]	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	a 11200	a 10500	e 11500	a 12600	a 12000	a 12900		[illegible]
Crockett	9090		e 8230	9370	10100		e [illegible]	[illegible]
Benicia	6710	6560	e 5250	7610	8350	9280	e 7310	[illegible]
Martinez	a 3340	a 2590	e 7030	a 5810	a 5700	a 9440	e [illegible]	a [illegible]
West Suisun	5720		e 3710	5900	7360	7170	e [illegible]	[illegible]
Innisfail Ferry	a 445	562	e 548		a 689	1130		a 117[illegible]
Port Chicago	bd 1060		ad 1750	e 5890	4880	d 3740	e 5[illegible]0	e [illegible]
Spoonbill Creek	a 327	194	a 175	a 290	a 329	389	a [illegible]	a 114[illegible]
Pittsburg		127	a 72	a 99	a 132	204		a [illegible]
			Sacramento River Delta					
Collinsville	a 21	56	a 40	a 34	181	111	92	
Emmaton	23	30	a 15	a 11	a 25	61	a [illegible]	
Threemile Slough Bridge	a 11	10	a 10	a 8	9	16	15	26
Rio Vista Bridge	10	9	11	9	8	15	13	10
Isleton Bridge	11	7	10	11	7	14	10	10
			San Joaquin River Delta					
Antioch	a 32	53	a 38	a 23	a 59	123	a 206	a 112
Antioch Bridge	26	a 31	a 23	a 28	a 28	35		a 36
Jersey Island								
Threemile Slough				a 15	a 13	18		a 15
Oulton Point	a 12	11	ab 12	a 12	15	16	a 16	a 15
San Andreas Landing	11	11	a 8		12	16	a 14	a 15
Opposite Central Landing	a 9	7	a 8	a 7		11	a 15	
Dutch Slough	d 21	19	a 18	a 19	21	23	a 12	a 21
East Contra Costa Irrigation District	44	52	a 41	45	44	40	47	30
Clifton Court Ferry	45	41	a 40	35	41	47	a 49	45
Mossdale Bridge	128	19	a 23	18	45	47	a 61	114
Vernalis (g)	124	17	22	21	43	47	59	111

Station	July 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	a 13300	a 13300	e 13300	a 14100		14000	e 14000	a 14300
Crockett							e 13[illegible]00	
Benicia	9380		e 8960	10000	12300	9490	e 10500	
Martinez	a 9150	8620	e 9480	6730	a 9300	8850	e 11900	a 11000
West Suisun								
Innisfail Ferry		1610	a 1400	a 1740		3250	a 2780	a 3080
Port Chicago	5580	5760	3942		9370	6480	e 8030	9370
Spoonbill Creek	a 1150	1400	a 1560	a 2070	a 3350	2800	a 3080	a 3540
Pittsburg		d 710	a 909	a 996	a 1820	ab 2350	a 1820	a 1920
			Sacramento River Delta					
Collinsville	a 534	805	a 708		a 1940	a 2030	a 1710	a 2000
Emmaton	a 62	d 119	a 98	a 113	b 492	389	a 268	a 425
Threemile Slough Bridge	25	23	19	27	187	65	175	121
Rio Vista Bridge		10	10	10	12	52	11	24
Isleton Bridge	10	10	a 9	10	11	17	11	10
			San Joaquin River Delta					
Antioch	a 186	397	a 249	a 375	a 742	a 1050	a 739	a 975
Antioch Bridge	a 45	d 83	a 76	a 105	a 358	a 280	d 333	a 364
Jersey Island								
Threemile Slough	a 14	25	a 24	a 34	a 40			
Oulton Point	25	25	abd 17	a 28	83	a 63	ab 64	a 82
San Andreas Landing	12	d 14	a 11	a 12	16	a 20	a 12	a 22
Opposite Central Landing	a 11	11	a 10	a 10		a 10	a 10	a 10
Dutch Slough	24	27	a 26	a 36	87	a 106	a 117	a 192
East Contra Costa Irrigation District	27	28	25	26	25	a 26	34	42
Clifton Court Ferry	33	36	a 30	28	23	a 24	a 24	23
Mossdale Bridge	124	160	a 158	290	195	a 198	a 236	230
Vernalis (g)	142	166	170	160	184	192	210	201

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	August 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	a 14300	14600	e 14400	a 14300	a 14300		a 14300	15500
Crockett	13000	12400	e 11800	12700	12500	13200	11600	13200
Benicia	11400	10200	e 10800	11200	10500	11600	11200	10800
Martinez	a 11600	12400	e 9650	7980	a 9690	9580		a 10500
West Suisun		9770	e 9020	11100	8290	11000	9360	8100
Innisfail Ferry		a 3560	a 3270	ab 3690	a 4040		a 4040	
Port Chicago	8860	7690	e 8140	9080	8600	8670		
Spoonbill Creek	3130	2970	a 3100	a 3120	2910	a 2980	a 3080	a 2690
Pittsburg		ad 1600	a 1690	a 1310		d 1600	ab 1370	a 1100
			Sacramento River Delta					
Collinsville	2430	a 1690	a 1350			a 1560	a 1820	
Emmaton	622	a 456	ac 206	a 163	335	a 204	a 114	353
Threemile Slough Bridge	124	71	a 58	a 91	67		101	114
Rio Vista Bridge	12	11	10	20	13	b 10	12	12
Isleton Bridge	10	12	10	a 11	10	b 9		11
			San Joaquin River Delta					
Antioch	1630	a 1060	a 664	a 683	1380	a 851	a 803	1180
Antioch Bridge	a 479	369	a 303		a 365	a 325	a 442	a 436
Jersey Island								
Threemile Slough	111	a 88	a 58	a 62	93	a 77	a 130	a 107
Oulton Point	121	a 79	a 52	114	77	ab 73	a 116	150
San Andreas Landing	26	a 24	a 22	a 20	35	a 18	a 43	
Opposite Central Landing	12		a 11	12	10	a 15	a 22	20
Dutch Slough	181	ad 163	a 149	a 138	123	ad 124	a 183	183
East Contra Costa Irrigation District	47	ad 159	58	62	63	a 66	69	77
Clifton Court Ferry			a 29	31	32	a 30	29	32
Mossdale Bridge	231	a 210	a 193	188	212	a 202	209	190
Vernalis (g)	208	171	186	188	208	184	167	183

Station	September 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	15600	15500	a 14900	a 14500	14400	a 14100	a 13500	13100
Crockett	11900	11400	e 12200	12500	12700	e 10200	11000	a 9930
Benicia	d 8980	10600	e 11500	9150	9080	e 8400	8490	7120
Martinez	10900	ad 7920	a 9770			e 9960	10800	8620
West Suisun	8170	8640	9210	6890	8680	e 6570	6890	5230
Innisfail Ferry	4720	a 4530	a 4340		3550	e 3400		
Port Chicago	6000	7920	6600		6420	bd 5380	6000	3240
Spoonbill Creek	2640	a 2260	a 2450	a 1890	a 1790	a 1180	a 1200	1030
Pittsburg		a 1230	a 590		a 849	a 613	a 476	ab 487
			Sacramento River Delta					
Collinsville	1400	a 792	a 745	a 637	a 660	a 401	a 444	328
Emmaton	abd 86	a 75	a 85	a 98	a 151	a 56	a 111	105
Threemile Slough Bridge	111	42	38	75	a 51	34	42	a 27
Rio Vista Bridge	10	14	13	15	14	17	13	8
Isleton Bridge	12	18	16	16	14	11	12	8
			San Joaquin River Delta					
Antioch	635	a 513	a 542	ad 519	a 377	a 218	a 90	287
Antioch Bridge	363	316	a 274	a 244	a 189	a 132	ad 113	79
Jersey Island						a 80	a [illegible]	57
Threemile Slough	a 129	ad 122	a 112	a 94	a 71	a 50	a 37	27
Oulton Point	a 125	ad 104		103	a 75		ac 27	a 20
San Andreas Landing	a 42	a 51	a 57	47	a 35	a 18	a 21	19
Opposite Central Landing	a 27	a [illegible]		17	a 13		10	a 10
Dutch Slough	a 173	a 165	ad 186	172	a 142	a 108	a 84	a 73
East Contra Costa Irrigation District	ab 73	a 78	a 85	a 92	a 90	a 89	92	a 84
Clifton Court Ferry	a 52	a 39	a 39	50	a 51	a 53	55	a 55
Mossdale Bridge	a 183	a 151	151	150	a 174	a 161	160	a 150
Vernalis (g)	158	172	149	158		151	169	154

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

TABLE B-39 (Continued)

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*

In parts of chloride per million parts of water

Station	August 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	a 14300	14600	e 14400	a 14300	a 14300		a 14300	15500
Crockett	13000	12400	e 11800	12700	12500	13200	11600	13200
Benicia	11400	10200	e 10800	11200	10500	11600	11200	10800
Martinez	a 11600	12400	e 9650	7980	a 9690	9580		a 10500
West Suisun		9770	e 9020	11100	8290	11000	9360	8100
Innisfail Ferry		a 3560	a 3270	ab 3690	a 4040		a 4040	
Port Chicago	8860	7690	e 8140	9080	8600	8670		
Spoonbill Creek	3130	2970	a 3100	a 3120	2910	a 2980	a 3080	a 2690
Pittsburg		ad 1600	a 1690	a 1310		d 1600	ab 1370	a 1100
			Sacramento River Delta					
Collinsville	2430	a 1690	a 1350			a 1560	a 1820	
Emmaton	622	a 456	ac 206	a 163	335	a 204	a 114	353
Threemile Slough Bridge	124	71	a 58	a 91	67		101	114
Rio Vista Bridge	12	11	10	20	13	b 10	12	12
Isleton Bridge	10	12	10	a 11	10	b 9		11
			San Joaquin River Delta					
Antioch	1630	a 1060	a 664	a 683	1380	a 851	a 803	1180
Antioch Bridge	a 479	369	a 303		a 365	a 325	a 442	a 436
Jersey Island								
Threemile Slough	111	a 88	a 58	a 62	93	a 77	a 130	a 107
Oulton Point	121	a 79	a 52	114	77	ab 73	a 116	150
San Andreas Landing	26	a 24	a 22	a 20	35	a 18	a 43	
Opposite Central Landing	12		a 11	12	10	a 15	a 22	20
Dutch Slough	181	ad 163	a 149	a 138	123	ad 124	a 183	183
East Contra Costa Irrigation District	47	ad 159	58	62	63	a 66	69	77
Clifton Court Ferry			a 29	31	32	a 30	29	32
Mossdale Bridge	231	a 210	a 193	188	212	a 202	209	190
Vernalis (g)	208	171	186	188	208	184	167	183

Station	September 1962							
	2	6	10	14	18	22	26	30
			San Francisco, San Pablo, and Suisun Bays					
Sobrante Beach	15600	15500	a 14900	a 14500	14400	a 14100	a 13500	13100
Crockett	11900	11400	e 12200	12500	12700	e 10200	11000	a 9930
Benicia	d 8980	10600	e 11500	9150	9080	e 8400	8490	7120
Martinez	10900	ad 7920	a 9770			e 9960	10800	8620
West Suisun	8170	8640	9210	6890	8680	e 6570	6890	5230
Innisfail Ferry	4720	a 4530	a 4340		3550	e 3400		
Port Chicago	6000	7920	6600		6420	bd 5380	6600	3240
Spoonbill Creek	2640	a 2260	a 2450	a 1890	a 1790	a 1180	a 1200	1030
Pittsburg		a 1230	a 590		a 849	a 613	a 476	ab 487
			Sacramento River Delta					
Collinsville	1400	a 792	a 745	a 637	a 660	a 401	a 444	328
Emmaton	abd 84	a 75	a 85	a 98	a 151	a 56	a 111	105
Threemile Slough Bridge	111	42	38	75	a 51	34	42	a 27
Rio Vista Bridge	10	14	13	15	14	17	13	8
Isleton Bridge	12	18	16	16	14	11	12	8
			San Joaquin River Delta					
Antioch	635	a 613	a 542	ad 519	a 377	a 218	a 98	237
Antioch Bridge	63	316	a 274	a 244	a 189	a 132	ad 113	79
Jersey Island						a 60	a 54	57
Threemile Slough	a 125	ad 122	a 112	a 94	a 71	a 50	a 37	27
Oulton Point	a 125	ad 104		103	a 75		ac 27	a 26
San Andreas Landing	a 42	a 51	a 57	47	a 35	a 16	a 21	19
Opposite Central Landing	a 27	a 22		17	a 18		10	a 10
Dutch Slough	a 173	a 165	ad 130	172	a 142	a 100	a 84	a 73
East Contra Costa Irrigation District	ab 73	a 78	a 85	a 92	a 90	a 80	92	a 84
Clifton Court Ferry	a 37	a 39	a 39	46	a 51	a 53	55	a 55
Mossdale Bridge	a 183	a 181	151	190	a 174	a 161	100	a 150
Vernalis (g)	158	172	149	168		151	169	154

* Samples taken at four-day intervals approximately one and one-half hours after high high tide.
a Taken after low-high tide.
b Taken on following day.
c Taken two days later.
d Taken over one hour off scheduled time.
e Taken on preceding day.
f Taken two days earlier.
g Station located above tidal action.

San Benito
LEGEND
WATER POLLUTION CONTROL REGION BOUNDARY
WATER POLLUTION CONTROL REGION
SAMPLING STATION (Refer to Index in Appendix B for list of stations)
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF RESOURCES PLANNING
QUALITY OF SURFACE WATER IN CALIFORNIA 1962
LOCATION OF STREAM SAMPLING STATIONS
SCALE OF MILES

SALINITY OBSERVATION STATIONS

Stations shown on map

- Spoonbill Creek
- [illegible]
- Collinsville
- [illegible]
- Threemile Slough Bridge
- Rio Vista Bridge
- Isleton Bridge
- Antioch
- Antioch Bridge
- Jersey Island
- Threemile Slough
- 2 Dutton Point
- San Andreas Landing
- Opposite Central Landing
- 5 Dutch Slough
- East Contra Costa Irrigation District
- Clifton Court Ferry
- Montezuma Bridge
- Venus
- Stations off map
- Sobrante Beach
- Crockett
- Martinez
- [illegible]
- [illegible] Ferry
- Port Chicago

Note: For description of stations or locations see Appendix B

LEGEND

BOUNDARY OF DELTA SERVICE AREA

BOUNDARY OF DELTA LOWLANDS

BOUNDARY OF HISTORICAL DELTA

SALINITY OBSERVATION STATIONS

WATER YEAR MAXIMUM ENCROACHMENT OF SALINITY OF 1000 PARTS OF CHLORIDE PER MILLION PARTS OF WATER.

STATE OF CALIFORNIA
THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
DIVISION OF RESOURCES PLANNING

LINES OF ANNUAL MAXIMUM
SALINITY ENCROACHMENT
SACRAMENTO - SAN JOAQUIN DELTA
AND
UPPER BAYS
1962

SCALE OF MILES
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